AN ASSESSEMENT OF THE CONSTRAINTS OF HOUSING AFFORDABILITY IN BENIN CITY, NIGERIA

BY

ISIWELE, AHAMIEBALOYAI JOSEPH

2018

RESIDENTS' PERCEPTION OF INDOOR SPACE QUALITY IN PUBLIC HOUSING IN AKURE, NIGERIA

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ISIWELE, AHAMIEBALOYAI JOSEPH
B.Sc, M.Sc (Architecture), M.BA
ARC/12/2907

A THESIS IN THE DEPARTMENT OF ARCHITECTURE SUBMITTED TO SCHOOL OF POST GRADUATE STUDIES IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF PHILOSOPHY (MPHIL.) IN ARCHITECTURE OF THE FEDERAL UNIVERSITY OF TECHNOLOGY, AKURE ONDO STATE. NIGERIA.

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APPROVAL PAGE

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2018

CERTIFICATION

(a) By the student

This work has not been presented elsewhere for award of a degree, or any other purpose.

Candidate's Name: **ISIWELE Ahamiebaloyai Joseph**,

Matric number: **ARC/12/2907**

Signature……..... Date……

(b) By the Supervisor:

I certify that this work has been presented by Mr Isiwele Ahamiebaloyai Josep in the department of Architecture of the Federal University of Technology Akure

Supervisor's Name: **Prof A.A Taiwo**

Signed……. Date……..

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DEDICATION

This research is dedicated to Almighty God for His care, grace and mercy upon my life and the entire members of my family.

ABSTRACT

Housing is an essential need to a man and its affordability is of a great concern to any prospective homeowner. However, there are a lot of constraints that are wrestling with housing affordability. This study focused on the assessments of those constraints to Housing Affordability in Benin City, Edo State. As a growing capital city in a third world country, Benin metropolis is experiencing acute housing affordability problem. Data was collected from questionnaire administered to 398 respondents in the study area. From the Data analysis, it was revealed that lack of finance, High cost of Building Materials and high rate of urbanization are mostly the constraints to housing affordability in Benin Metropolis. The conclusion and recommendation are that: Government should play a pivotal role by taken steps that will open up rural areas, provide employment opportunities order to stem the mass drift from rural areas to already over populated urban cities. Survey technique was used, data was collected from questionnaire administered to 398 respondents in the study area. From the data analysis, majority of the respondents in the study area, were low income earners. It was discovered that there was high rate of unemployment in the study area. The study also revealed that the income of the households and cost of housing constitutes major constraints to housing affordability in Benin City. Other constraints to housing affordability in the study area are: inability of the residents in the study to access mortgage or housing loan and high cost of building materials. It was recommended that government should reform the mortgage system to facilitate credit expansion, especially to low and medium income earners. The development of local building material will reduce over dependent on foreign building materials for the construction of housing in Nigeria. In conclusion, cost of housing and income are major constraints to housing affordability in the study area. Households in the study area face housing constraints arising from the interaction of a wide variety of factors both within and outside housing sector.

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1.0 INTRODUCTION

Shelter has been man's primary concern since his existence. Man's yearning for provision of decent and affordable housing is a clear manifestation of his determination to protect himself properly from the hazards of his socio-physical environment such as rain, sunshine, diseases and wild animals.

Housing affordability is a central issue in the contemporary housing policy debates. It is an important subject in both academic and policy research. It is one of the topics that have dominated housing discussions in the past three decades. In fact, the question of housing affordability is one housing issue that has attracted global concerns, generating discourse at national and international levels across countries, both developed and developing. The importance of housing affordability in human settlement cannot be over-emphasized. This thesis presents the outcomes of a research on housing affordability in Nigeria, focusing particularly on the affordability of accessing homeownership/renter in Benin City.

1.1 Background of the Study

Housing is the essential element of every human settlement and it holds singular importance in the general strategy of development (Osuide, 2004). Housing can be defined as the provision of any structure, erection of building which is man made for the purpose of accommodating a person or persons. NHP (2006) defined housing as the process of providing functional shelter in a proper setting in a neighborhood supported by sustainable maintenance of the built environment for the day-to-day living and activities of individuals and family within the community.

The affordability of an item simply refers to the amount of financial stress that the purchase would place on the purchaser (Stone, 2006).

This definition is entirely subjective; because what is affordable to one person may not be affordable to another. Darko (2013) states that due to this subjectivity a clear definition of affordable housing is difficult to pin down. However, many authors have given varied definitions depending on their perspective of housing affordability. According to Binke Burke (2004), housing affordability refers to the capacity of households to meet housing costs while mainly the ability to meet other basic costs of living. While the United State Development (HUD, 2011) describes housing affordability as housing that does not exceed more than 30 percent of the occupants income Robinson, M., Scobie, G.M. & Hallinan, B (2006) stated that affordability is not simply a matter of housing costs and income levels; it is about people's ability to obtain housing and stay in it.

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Olotuah (2000) concluded that one of the rationale for public housing is to ensure housing affordability for a target population. Evidences from literature indicate that affordable housing refers to housing that cost between 25 percent to 30 percent of the household gross income (Freeman, 2002, Quigley and Raphael, 2004; Onyike, 2007; Aribigbola, 2008). Therefore, households who pay more than the bench mark of 30 percent of their total income on rent and utilities, or where owner occupier, spend more than 30 percent on mortage repayment, issuance, taxes and utilities, are considered to be under housing stress (Onyike, 2007; Aribigbola, 2008). Such households may have difficulty in affording other basic needs of life such as food, clothing, health care and transportation. This suggest that affordable housing ensures that different standards at price or rent do not impose an unreasonable pressure on the household's income.

According to UNCHS (HABITAT, 1991), housing affordability is an assessment that relates a particular housing solution to the amount that can be paid for without unduly stretching the payer's resources. This view of affordability is of wider applicability, as it is applicable to renters, as well as those who want to buy their houses without recourse to mortgage facility (UNCHS, HABITAT, 1991). According to Aurthor, et al (2002) housing affordability is more difficult to define: Generally, according to them, it involves the capacity of households to consume housing services; specifically it involves the relationship between household incomes and housing prices and rents.

However, in a mortgage-based housing delivery system, housing affordability can be conceptualized as the ability and capacity of household to meet their periodic mortgage obligations without Jeopardizing their health or reducing their family nutrients intake (Agbola, 1990; Olatubara and Agbola, 1992). Measurement of affordability is problematic as what individual household can afford is often under estimated.

Affordability index provides consumers, policy makers, lender, and investors with the information needed to make better decision about which neighborhoods are truly affordable and illuminate the implications of their policy and investment choices.

From both academic and practitioner literature, there are two major measure of housing affordability. However, it must be noted that affordability is not an inherent characteristics of housing, but a relationship among **housing costs, household income** and **minimum acceptable standard of housing** (CHR. 2004). Therefore, in defining housing affordability, there are three critical elements. These are the household income, the cost of housing (rent to renters and purchase price to buyers) and minimum housing accommodation for the household, which is a function of household size and acceptable health standard usually defined by the government.

The affordability index calculates the true affordability of a home based on its market value and the transportation costs incurred by its location. It does so not only at the broad metropolitan area level but also at the neighbourhood level, where hundreds of consumer, investment development and infrastructure decision are made every day Used at a community level, the Affordability index can help households assess which neighbourhood in a region are most affordable, and it can help policymakers determine where resources should be focused to enhance affordability.

1.2 Statement of the Research Problem

Affordability generally is a measure of ability and capability of consumer to pay for goods and services consumed. In a market economy, price will not only allocate quantity, but also, the quality of goods and services that each household will consume based on their level of affordability. According to UNCHS (HABITAT, 1991), housing affordability is an assessment that relates a particular housing solution to the amount that can be paid for without unduly stretching the payer's resources. This view of affordability is of wider applicability, as it is applicable to renters, as well as those who want to buy their houses without recourse to mortgage facility (UNCHS, HABITAT, 1991). According to Arthur, et al (2002) housing affordability is more difficult to define. Generally, according to them, it involves the capacity of households to consume housing services; specifically it involves the relationship between household incomes and housing prices and rents.

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underlying the calculation and the snapshot image of household's income, which disregards the income and family live cycles through which household tend to pass. Thus in most cases, household affordability is based on current level of income, neglecting the income growth possibility that may be glaring. Also, only the income of the breadwinner is relied upon, thus disregarding the income of other members of the household that are working and who are often willing and able to contribute towards house ownership of their family.

In his work, Stone (1993) used shelter poverty measurement to define and measure housing affordability. He employed a sliding scale to reflect that upper income and smaller households can afford to spend much more than 30 percent of their incomes on housing and still have enough left over to satisfy other basic needs. On the other hand, extremely low-income households may pay less than 10 percent of their incomes on housing costs and may be forced to forego essential medical care and healthy food. In view of the definition and measurement problems, Arthur, et al (2002) recommend that coalition of interests be formed to agree on ust what is meant by housing affordability. they pointed out that such definition would need to consider all forms of housing, reflect accurately all cost of housing and establish a transparent relationship between income from all sources and costs.

It is also important that calculation of housing affordability should consider the importance attached to house ownership by households and which may make households to spend beyond the limit of International Labour Organisation's (ILO) standard of maximum expenditure on housing of 25-30 percent. Therefore, what a family will be willing to commit to owing their own house rent will vary among and across households in accordance with relative importance they attach to house ownership or rent apartment.

In the context of this study, therefore, affordability will be viewed broadly as the ability of the household to meet conditions for ownership, which will include ability to meet down payment requirement and also cope with their period repayment obligations, without sacrificing the household's health and nourishments.

Affordability will also be viewed and calculated as the ability of the household to meet conditions for rent. Affordability on renter basis will be calculated not just only on the basis of the household income and housing cost, as it has been the case of previous studies, on housing affordability, this study will consider transportation which is an essential component of housing affordability, especially in the case of renter affordability. This is a major gap this studies into fill. Housing affordability in the context of this study is the ability of the household to pay the price or rent of housing and meet the down payment and repayment terms without committing more than 30% of their annual income.

1.2.1 Cost of Housing Development

Housing provisions for all in any country is very crucial in order to ensure social-economic stability and to promote national development. Access to this basic need by the poor-who constitute the largest percentage of world population has remained a mirage.

High cost of building in Benin City can be attributed to rising cost of building materials, cost of land acquisition, inflation rate in the economy and activities of youths (**Dimuna 2006)**. The appraisal or criticism of a government can be measured with the level of the implementation and effectiveness of its policies. As such, the goals on objectives of policies are exposed through public policy. To this end, several authors have appraised the performance of the Nigeria housing policy (see Lawal, 1977; Fafamiro et al, 2004; Jinadu 2004; Ogu and Ogbuozobe 2001; Ibimilua 2011; Kehinde 2010; Fasakin, 1993, Sulyman, 2000).

Zaibaru (2000) notes that the absence of large real estate development companies with relevant technology and financial muscle to develop cheap houses on large scale for the urban poor is a draw-back to our housing delivery system. This absence of big time developers has discouraged the development and local production of low cost building materials on a commercial basis. The reliance of imported conventional building materials has led to high cost of construction; thereby compounding the affordability of housing, proliferation of low quality contractors is also a major challenge in the building industry. Zubairu (2000), and Windapo 2000 noted that the reliance on quacks is one of the drawback on the industry. There is acute shortage of skilled personnel in various trades. The large multinational firms employ few skilled persons.

Fiancé has been identified by Omole (2001) as the bane of Nigeria's housing. This is so because income is low among workers especially the low income earners. Olotuah (2009) also observed that the disparity between the price of and quantity of housing on the one land and the number of households and money available to them to pay those prices on the other hand constitute the central problem of housing. According to Okupe and Windapo (2000) the gap between income and housing cost in Nigeria is very wide. This has almost eliminated the low-income earners from the housing market.

The unit cost of one bedroom bungalow built by Edo State Government in 2002, by the Chief Lucky Igbinedion administration was sold at N1,000,000 which the government considered to be the cheapest anywhere in the country at that time. While the cost of 3 bedroom unit sold by the Delta State Government in the Asaba and Jedon-Warri housing estate were advertised for between N3.5 million to ₦4 million naira respectively. Therefore, house intended for low income Civil Servants were later sold to members of the public who in turn, rent these house out, to the same low income earners at exorbitant prices.

1.2.2 Problem Militating Against Development/Provision of Housing in Benin City

In the opinion of Ademiluyi (2010) problem faced in the provision affordable housing by the government are problem of plan implementation, inadequate data relating to the magnitude of the problem partly due to the absence of the national data bank on housing inconsistency in government policies and programmes, inefficient and sustainable credit delivery to the housing sector, relatively low income in comparison with house market price, high cost of building materials, the rapid annual growth rate of the Nigerian population, ineffective coordination among housing agencies and politicization on housing issues.

According to Oyenuga (2006) there is no affordable housing without land. The author argues that an access to land is beyond location and transportation but to the degree of ease to which an ordinary citizen can acquire and for private development. The author states that the land use Decree of 1998, which was promulgated to make land available equitably for all Nigerians, has succeeded in making it easier for land to be acquired for public use while access to land for private use has become difficult. Windapo & Iyagba (2007) modeling the determinants of housing construction cost in Nigeria identified land as the main component of the shelter problem because it is the place where housing construction starts, laying emphasis on the cost of acquiring land, other factors identified were cost of building materials cost of finance foreign exchange rates, cost of infrastructure and labour cost.

Summary of some of the Factors Militating Against Housing Development and Affordability in Benin City.

1.2.3 Rapid urbanization and population growth

The population of Benin City was put at 53,753 in 1952 census and 100,693 by 1963 census. However the city in the 1991 census, was put at 780,976 persons (National population commission , 1991); but using a population growth of 3.1%, the population of Benin City in 2005 was estimated at 1,161,118. But the 2006 census, recorded the population of the city to be 1,346,703. Also, using population growth of 3.1%, the population of Benin City in 2015 is estimated at 1,719,258. This population growth no doubt reflects a dynamic urban centre with a lot of pressure on housing provisions.

The major problems of this rapid urbanization are the fact that it has not been accomplished with adequate infrastructural facilities and sufficient housing to meet the needs of urban dwellers (Osuide & Dimuna, 2005).

Table 1.2.3 Population of Benin City 1991 and projected on a 3.1% growth rate to 2005

Year	Population
1991	780,976
1992	805,186
1993	830,147
1994	855,882
1995	882,414
1996	909,769
1997	937,972
1998	967,049
1999	997,028
2000	1,027,936
2001	1,059,802
2002	1,092,656
2003	1,126,528
2004	1,161,450
2005	1,197,455
2006	1,346,703
2007	1,388,451
2008	1,431,493
2009	1,475,869
2010	1,521,621
2011	1,568,791
2012	1,617,424
2013	1,667,564
2014	1,719,258
2015	1,744,555
2016	1,764,181

Source: National Population Commission, Benin City, 2006

1.2.4 Land Tenure and Acquisition

This is particularly true of the urban centres because land is highly valued and mostly in the hands of stage government.

In Benin metropolis, community lands were held in trust by the Oba of Benin. However, the promulgation of the land used No.6 of March 29 1978 (now Act cap 202 of 1990 has divested

individuals of interest in land and vested them, except federal lands on the State Governor. Under this law individual only have occupancy right on and that can be revoked at anytime by the state for overriding interest. The land use Act of 1978 which vest all lands in the State, on the State Governor, is an obstacle to making land available for housing development.

The cost of urban land in Benin Metropolis continues to increase geometrically and the values of land continue to appreciate.

1.2.5 Financial Constraints

The importance of finance in the provision of housing cannot be overemphasized. Finance plays dominant role in the development of affordable housing. However, there are a lot of constraints in accessing finance by housing developers in Benin City, and Nigeria in general.

In Benin metropolis there are few primary mortgage institutions. They include: Union homes and saving limited. Isoken Royal Savings, Edo State Housing Corporation and Stanbic Plc. Finance is the bane of housing development in Benin City because income is low, cost of living and invariably saving is low among workers, especially the low income earners. Finance has been identified by Omole (2001) as the bane of Nigeria's housing. This is so, because income is low among workers, especially the low income earners. Olotuah (2001) also observed that the disparity between high price of and quality of housing on the one hand the number of household and money available to them to pay for these prices on the other hand constitute the central problem of housing.

1.2.6 Unemployment and Poverty

The urban unemployment rate was estimated at 3.8% in 1993, 6% in 1997 and has reached 10% in the year 2000 due to deteriorating state of the national economy (the Guardian Newspaper 2006). The influx of rural dwellers with little or no skills or formal training to urban centres continues notwithstanding (Dimuna, 2012). The table below shows the wages of some workers in Benin City.

1.2.7 High Cost of Building Materials

Most building materials and components are imported and that makes them very expensive in the face of the value of naira and galloping inflation.

1.2.8 Activities of Members of Communities

In Benin City, virtually all the communities that make up the city have what they called "Community Development Association" (CDA). The activities of member of these association is very exploitative. Some communities charge as much as up to one million (₦1,000,000) cash and Other charges (chairs, drinks etc) before any perospective developers ould be allowed to commence any development.

This has contributed to the high cost of housing development and affordability in Benin City. The table below shows the development fees and other charges by some communities in Benin City.

Table 2: Wages of Workers Per Day/Week/Month, In Benin Metropolis

S/N	Tradesman and Artisans	N
1.	MASON	
	Day	3,000
	Week	18,000
	Month	72,000
2.	ELECTRICIAN	
	Day	3,500
	Week	21,000
	Month	84,000
3.	PLUMBER	
	Day	3,000
	Week	18,000
	Month	72,000
4.	CARPENTER	
	Day	3,000
	Week	18,000
	Month	72,000
5.	JOINER	
	Day	3,000
	Week	18,000
	Month	72,000
6.	TILLER	
	Day	4,500
	Week	27,000
	Month	108,000
7.	WOOD MACHINIST	
	Day	2,000
	Week	12,000
	Month	48,000
8.	SHEET METAL WORKER	
	Day	3,000
	Week	18,000

	Month	72,000
9.	IRON BENDER	3,000
	Day	18,000
	Week	72,000
	Month	

S/N	Tradesman and Artisans	N
10.	PAINTER	
	Day	2,500
	Week	15,000
	Month	60,000
11.	GLAZIER	
	Day	3,000
	Week	18,000
	Month	72,000
12.	ASPHALT WORKER	
	Day	3,500
	Week	21,000
	Month	84,000
13.	QUARRY WORKER	
	Day	2,500
	Week	15,000
	Month	60,000
14.	CONCRETE WORKER	
	Day	3,500
	Week	21,000
	Month	84,000
15.	EARTH MOVING EQUIPMENT AND PLANT OPERATOR	
	Day	4,000
	Week	24,000
	Month	96,000
16.	WELDER	
	Day	2,500
	Week	15,000
	Month	60,000
17.	LABOURER	
	Day	2,000
	Week	12,000
	Month	48,000

Source: Author's field work 2016

Table 3: Community Development Fees And Other Charges At Selected Communities in Benin Metropolis

S/No	COMMUNITY WITHIN BENIN CITY	COMMUNITY DEVELOPMENT FEES AND OTHER CHARGES
1.	Ugbiyoko	N150,000+3 Cartons of beer @ N2,999 each (N6,000) = N156,000
2.	Agbodo	N50,000
3.	Oghede	N150,000+3 Cartons of beer @ N2,000 each (N6,000) = N156,000
4.	Igo	N200,000
5.	Ugholo	N150,000+5 plastic chairs @ N1,000 each (N5,000) = N155,000
6.	Obagie	N100,000+ 2 Cartons of beer @ N2,000 each (N4,000) = N134,000
7.	Evbodia	N200,000
8.	Utagban	N70,000
9.	Amagba	N800,000 + N200,000 (for crops) + 20 chairs @ N20,000) = N840,000
10.	Evbukhun	N250,000 + N200,000 (for crops) = N260,000
11.	Ogheghe	N250,000 N10,000 (for crops) = N260,000
12.	Obe	N750,000 + N 30,000 (for crops) = N780,000
13.	Ugbekun	N200,000 + 20 chairs (N20,000) = N220,000
14.	Ohovbe	N350,00 + N10,000 + 20 chairs (N20,000) + 6 kolanuts (N500)+2 cartons of beer (N4,000) = N384,500
15.	Evboriaria	N300,000 + N20,000 (for crops) = N320,000
16.	Oben'Evberibo	N250,000 + N50,000 (for crops) + 20 chairs @ N1,000 each = N20,000) + 3 cartons of beer (N6,000) = N326,000
17.	Ekae	N750,000 + N20,000 (for crops) N770,000
18.	Olumo	N250,000
19.	Irhirhi	N700,000
20.	Ogba	N900,000
21.	Ezebu	N250,000
22.	Uteh	N200,000
23.	Uselu	N300,000
24.	Oko	N950,000
25.	Aruogba	N600,000
26.	Ebo	N700,000
27.	Ugbor	N900,000+3 cartons of beer (N6,000) = N960,000
28.	Evbuoabogun	N600,000 + 5 cartons of beer (N10,000) = N610,000

29.	Iyekeogba	N40,000 + 3 cartons of beer (N6,000_ = N960,000
30.	Ugbe	N90,000 + 3 cartons of beer (6,000_ = 960,000
31.	Ogida	N150,000 + 3 cartons of beer (N6,000) = N156,000
32.	Useh	N150,000 + 6 chairs (N6,000_ + 3 cartons of beer (N6,000) = N162,000
33.	Ogiemwonyi	N170,000 + 3 cartons of beer (N6,000) = N176,000
34.	Uzebu	N160,000 + 5 cartons of beer (N6,000) = N170,000
35.	Ologbo	N120,000 + 3 cartons of beer (N6,000) = N126,000
36.	Iyanomo	N140,000 + 2 cartons of beer (4,000) = 140,000
37.	Obaretin	N130,000 + 3 cartons of beer (N6,000) = N136,000
38.	Oluku	N120,000 + 3 cartons of beer (N6,000) = N126,000
39.	Ukhun	N120,000 + 3 cartons of beer (N6,000) = 126,000
40.	Aduwawa	N300,000 + 3 cartons of beer (N6,000) = N306,000

Source: Author's field work 2016

1.3 Research Questions

1. How does socio-economic characteristics of residents affect housing affordability in Benin City?
2. How does the housing costs influence housing affordability in Benin City?
3. What are the factors affecting housing affordability in the study area?

1.4 Aim and Objectives

The aim of this study is to assess the challenges of housing affordability and measures to achieving housing affordability in Benin City.

In order to achieve this aim, the following specific objectives were considered:

i. to examine the influence of socio-economic characteristics of residents on housing affordability in Benin Metropolis;
ii. to analyzing housing costs within Benin City
iii. to identify factors affecting housing affordability in the study area

1.5 Hypothesis

In line with the objectives of the research the following hypotheses were postulated:

H_{01}: There is no correlation between socio-economic characteristics of residents and housing affordability in Benin Metropolis

H_{a1} There is no correlation between socio-economic characteristics of residents and housing affordability in Benin City

H_{02}: There is no correlation between urbanization growth and housing affordability in Benin City

H_{a2}: There is correlation between urbanization growth and housing affordability in Benin City

1.6 Scope of the Study

The scope of this study is limited to the assessment of the constraints of housing affordability in Benin City. Benin City consists of three local government area. These includes: Oredo, Egor and Ikpoba-Okha local government areas. There local government area are currently facing acute housing problems due to their rapid urban and population growth. The study is carried out to investigate the constraints of Socio-economic characteristics, urbanization and other factors on housing affordability in the study area. Data were collected using structured questionnaire in the study area.

1.7 The Study Area

The study area is Benin City, the present capital of Edo State of Nigeria. The city comprises three local government areas: Oredo, Egor and Ikpoba Okha, which make up the Benin metropolis. But presently, sub-urbanization has stretched the city towards Oluku in Ovia South West and Eyaen in Uhumwonde Local Government Areas. Geographically, Benin City lies within the latitude 6^0 2^0 and 6^0 31 North and longitude 5^0 32 and 5^0 41 east of the Greenwich Meridian. Benin City occupied 2217.6 hectres of land in 1952, by 1963 census, it occupied 16800 hectres and by 1991 it occupied 19,794 hectres of land. By 2006 National Population Census (NPC) the population ob Benin City

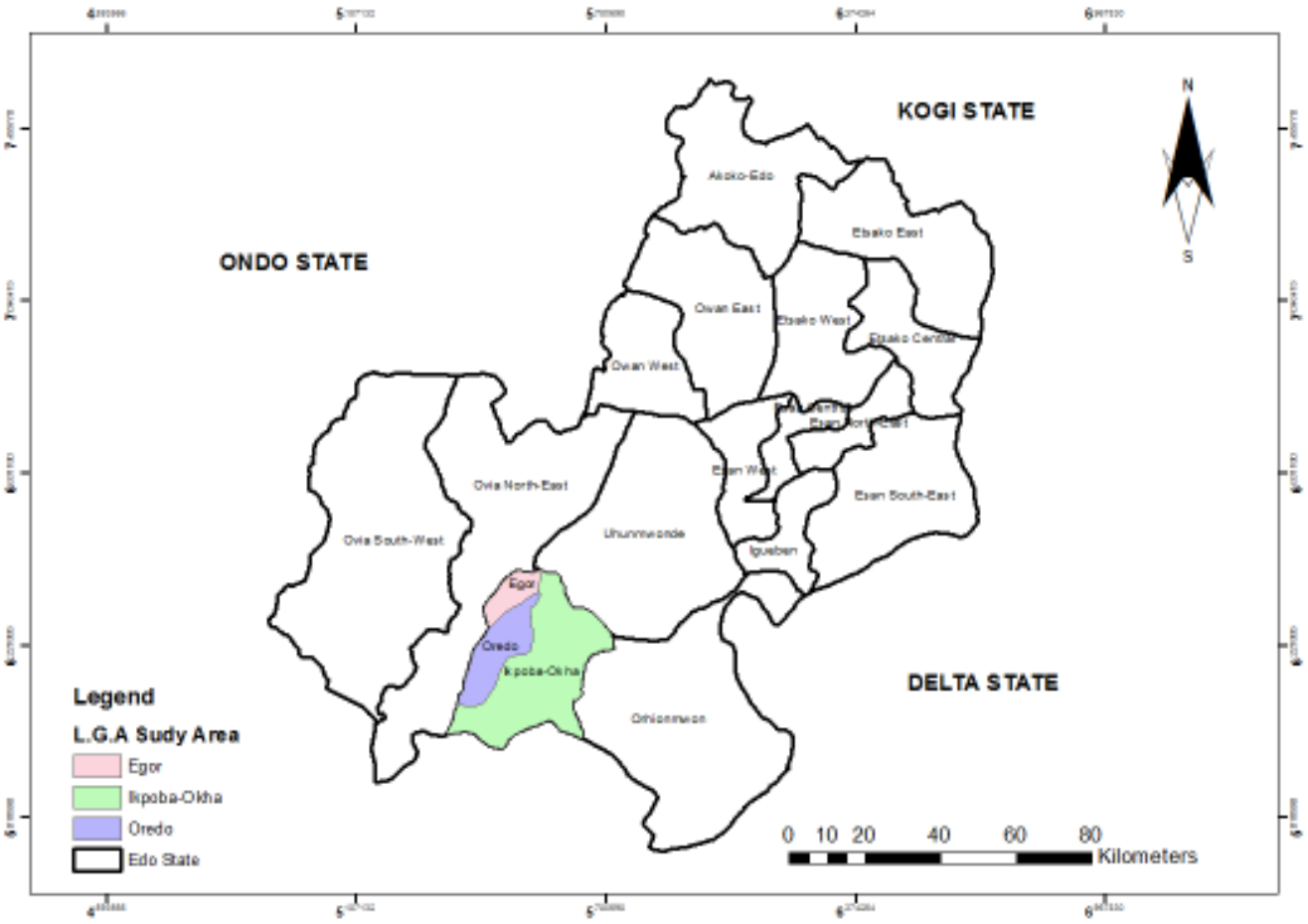

Figure 1: The Study Area in its Regional Setting

Source: Edo State Ministry of Lands and Survey. Benin City.

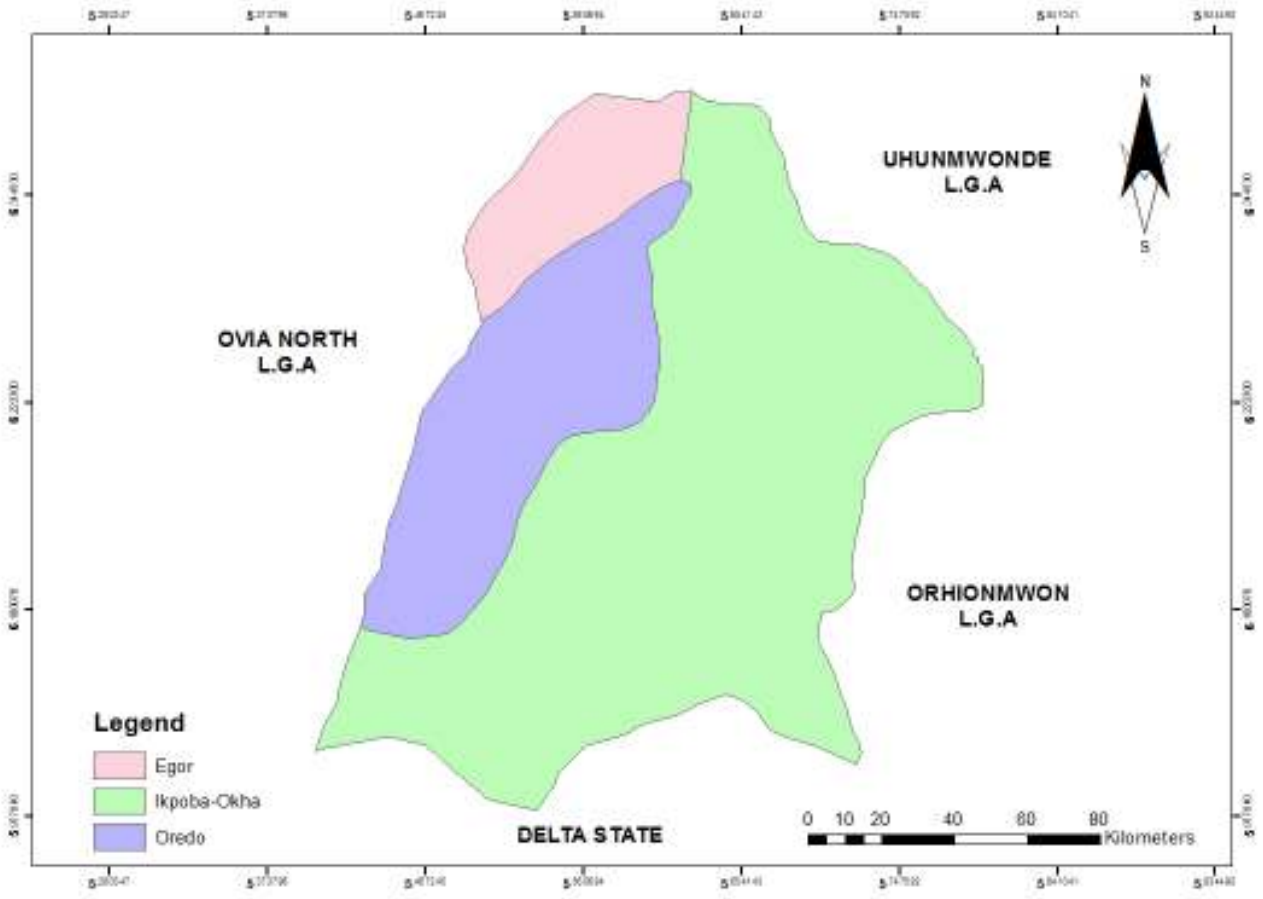

Figure 2: Map of Benin Metropolis – The Study Area

Source: Edo State Ministry of Lands and Survey. Benin City.

1.8 Justification for the Study

For any developing country the provision for shelter is of paramount importance to low and moderate income households. Shelter is one of the basic needs for human survival in addition to food and clothing. Ferguson (1999) notes that surveys of low income households in developing countries typically show that housing has a high priority than education or healthcare. The shortage of adequate housing in the world today is of such magnitude that it requires urgent attention. More than one billion human beings still lack adequate shelter and are living in unacceptable conditions of poverty (Habitat Agenda paragraph 53). The majority of these live in developing countries with rapid growing population such as Nigeria. The 2006 census states that the Nigeria population as at that period was about 140 million. The population of Edo State was given as 3,218,332 persons. National population commission NPC (2006). Nigeria is currently experiencing a severe housing shortage. Government estimates the housing deficit at 12-17 million units, for average household size of six persons per house hold. The government also estimates that it would require between ₦31 trillion and ₦44 trillion to bridge the gap.

Nigeria is rapidly developing country with enormous need for the provision of shelter for her teeming populace, especially the low income group. The inadequate provision or delivery of housing

in Nigeria has resulted in overcrowding in homes and increasing pressure on infrastructural facilities with attendant deteriorating environment, particularly in urban areas. In developing countries, poor housing delivery has been attributed to inadequate mechanism and system of funding, land allocation, mortgage institutions and infrastructure (Encarta, 2007). This has made the quest for affordable housing in developing countries such as Nigeria, unattainable.

According to Areyala (2005), Osuide and Dimuna (2005), Nigeria urban areas are experiencing high urban growth rate ranging from 5% to 7% as compared to the national population growth rate of 2.8%. The main contributor to high level of urbanization is rural – urban migration and to lesser extent, the national population growth.

Benin City is one of the cities experiencing high rate of urbanization and population growth in Nigeria. Housing provision is grossly inadequate for the teeming population of the city and most residents, especially the low income group, cannot afford to pay and live in decent houses. The fact is that low income earners in Benin metropolis do not have access to decent and affordable housing.

This study therefore, seek to investigate the constraints to housing affordability and articulate the main issues that must be addressed to enhance the provision of decent and affordable housing for residents in Benin City; Edo State of Nigeria.

1.9 Limitation of the Study

The limitation experienced during the data collection was that most of the residents in the study area, were not willing to cooperate with the researcher and the research assistants in giving out information easily. Some residents in the area were skeptical and were thinking that the information being sought for the study, may later be used against them for taxation purpose.

It took a lot of persuasion and clarifications for the researcher and the research assistants to convince most of the residents to respond to the questionnaire

1.91 Significance of the Study

This is simply the envisaged benefits (both long and short term) derivable from the study (Uji, 2009). Conventionally, a statement must be used for the benefit of mankind and its application in other areas of human inquiry.

It is hoped that this study will provide useful information about the constraints of housing affordability in Benin City and also make some useful recommendations that can help to achieve housing affordability in Benin metropolis.

Therefore, the study will have the following significance:

1. The study indicated the factors millitigating against housing affordability in the study area and in Nigeria in general

2. The findings of the study will specifically help both cooperate organizations, governments at all levels and private individual developer to adopt the best and cheapest way to provide affordable housing for the low income earners.
3. The study investigated the impact of Socio-economic characteristics of residents of the study area, urbanization, and high cost of building materials on housing affordability
4. The study examined the easy at which the residents of the study area can have access to finance to build their houses.
5. The study also provide guidelines for policy makers in the formulation of housing policies that can result in housing affordability to especially the low income earners
6. The study also acts as a basis for further research to other researchers in the field of housing affordability.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Defining and Conceptualizing Housing Affordability

Over the past three decades, housing affordability has become a major policy concern across countries in the various regions of the world. The concern about housing affordability arises from different specific housing outcomes in different countries but essentially due to rising household's housing cost burdens and declining ability of households, especially the low-income and younger households, to access homeownership. In the U.K, for example, concerns about affordability and access to housing have resulted from unprecedented housing price rises, high and fluctuating interest rates, and widening income inequalities (Bramley, 1992). Subsequently, housing affordability became a policy concern in the country because of the widespread aspiration for homeownership and concern over the disadvantage faced by renters due to lack of access to asset accumulation feature of homeownership (Wallace, Jones, & Duffy, 2009).

On the other hand, in Australia, housing affordability became a policy language in the 1980s in response to high mortgage interest rates and a housing price boom, and as a result of rising housing cost pressure experience by the lower income households and first time buyers (Gabriel, Jacobs, Arthurson, Burke, & Yates 2005). In addition, affordability of access to homeownership and the difficulties faced by households in repaying their mortgages have generated continued public and political concern in Australia (Hulse, et al, 2010). At the European level, the increasing pressure on households' budgets by the current global financial and economic crisis has been raising increasing concern about housing affordability (Pittini. 2012).

Consequently, several issues are at the centre of housing affordability with variation depending on the societal characteristics and problems. In the developed economies of the West, family housing wealth, property prices and mortgage debt have dominated debates on housing affordability and related societal problems (Wang, Shao, & Forest, 2010). In contrast, in the developing and emerging economies, the burning issues has been the threat to stability of societies by the widening gulf between the rich and the poor in the cities that result from high property prices (Wang, et. Al, 2010). Most importantly, issues of how to precisely define and conceptualize housing affordability and appropriately measure it, have engaged the attention of researchers and analysts for many years. Because of the central place of housing affordability of contemporary Policy matters, several attempts have been made at dealing with the issues, but the results have been conflicting ideas and a precise definition and conceptualization is still lacking.

One of the most quoted definitions of housing affordability stated that "affordability is concerned with securing some given standard of housing (or different standard) at a price or rent which does not impose, in the eye of some third party (usually the government) an unreasonable burden on household income" (MacLennan & Williams, 1990, p.9). Similarly, Hancock (1993)

asserted that opportunity cost is the essence of the concept of housing affordability: "what has to be forgone in order to obtain housing and whether that which is forne is reasonable or excessive in some" (p129), (emphasis added). Thus "housing is not affordable for a household if it excessively crowds out other expenditures" (Thalmann, 2003, p294) (emphasis added). The author considered the term 'excessively' as key in the statement. In the same vein, Bramley (1992, p832) stated that:

'Affordability' refers to whether households can reasonably be expected to meet the consumer cost (rent or mortgage payments, plus any other items such as repairs) of housing suitable for their needs without getting into hardship or risking actual difficulty (e.g arrears) emphasis added).

These definitions suggest that housing affordability is conceived in terms of a household ability to meet its non-housing needs from the household income after paying for housing in essence, the question of housing affordability is the ability of a household to balance its expenditures on standard housing and non-housing necessities within its income. If the household can make the balance, housing is affordable, otherwise it is not. As stone (2006a, p151) summed it up.

Most fundamentally, housing affordability is an expression of the social and material experiences of people, constituted as households, in relation to their individual housing situations. Affordability expresses the challenge each household faces in balancing the cost of its actual or potential housing, on the one hand and its non-housing expenditures on the other, within the constraints of its income (p151). Stone's definition points to the peculiar housing affordability situations of individual households, which is important in the 'ability to balance'. But the author pointed out that individual experiences and public policy are mediated through normative standards of housing affordability and analytical indicators that go beyond particular individual experiences such that individual experiences are measured against a rational standard.

The diverse perceptions of the concept of housing affordability raise difficulty in defining a benchmark to determine what is affordable. There is no common standard against which the 'ability to pay' is measured or consensus as to one. Logically, housing is 'affordable' implies that it can be paid for without entering into financial difficulty. But even determine what amounts to financial difficulty still raises the problem of standard. Conventionally, the standard is set in relative measure that specifies a percentage of income as benchmark for housing costs. The alternative is to define the standard in monetary terms as to a household being able to meet the costs of other necessities after paying for adequate accommodation; that is whether the amount of income remaining after housing costs (residual income) is sufficient to meet the household's non-housing needs at some minimal level. So, housing affordability problems arise when a household's income is inadequate to meet the costs of various non-housing needs after paying for a dwelling of reasonable standard, appropriate to the size and structure of the household (Berry, 2006a). thus, affordability depends not only on rents

and incomes but also on housing standards and the benefit system (Marshall, Grant, Freeman, & Whitehead 2000).

Furthermore, some researchers have attempted to distinguish between 'accessibility' and 'affordability' (Bramley, 1992; Robinson, Scobie, & Hallinan, 2006). Bramley defined 'access' as 'formal rules governing households' ability to obtain housing' especially the rules applied by financial institutions for granting of home purchase mortgages, such as 'a reflection of the initial conditions facing a potential tenant or owner which includes interest rate, rents, prices, income and criteria lenders apply. On the other hand they stated that affordability refers to the ongoing cost of renting or owning a home. They however said that both concepts reflect many common factors and that there is no clear demarcation between them. Also, while referring to both terms, Gan and Hill (2009) drew a distinction between them through three concepts namely, purchase affordability, repayment affordability, and income affordability. The authors stated that purchase affordability considers whether a household is able to borrow sufficient funds to purchase a home. This concept actually describes accessibility. On the other hand, they stated that repayment affordability is concerned with the burden of mortgage repayment imposed on a household. This concept corresponds to affordability in the preceding definitions. Income affordability, the authors said, measures the house price-to-income ratio.

These distinctions between 'accessibility' and 'affordability' suggest that affordability begins where accessibility ends. This means that the issue of affordability comes in when a household has accessed housing. In reality, however, there is no clear line between accessibility and affordability. Accessibility is an aspect of affordability which itself encompasses the ability to access housing and to maintain its on-going costs. Accessibility problem is affordability problem. In the context of owner-occupier market housing, affordability could be defined in terms of either the ability to first time buyers to purchase a home or the ability of households to maintain homeownership costs/mortgage payments (Harris, 2003). In this context, it implies households being able to meet the terms on which mortgage can be granted to buy a home, or to meet the regular cost of homeownership such as payment of mortgage.

When housing affordability is defined with respect to owner-occupier housing tenure it is also referred to as homeownership affordability. This affordability concept refers to different measures of cost of homeownership in relation to incomes including house prices, mortgage interest rates, and sometimes other case elements of house ownership (Rodda & Goodman, 2005). It deals with the ability to access homeownership as well as to sustain its ongoing costs the affordability measures can be broadly classified along those that measure the cost of repaying mortgage debt and those that measure the a affordability of accessing the housing market (Duffy, 2004). A household seeking a mortgage to purchase a home has to deal with the two separate but complementary issues relating to these two broad measures- qualifying for the mortgage and being able to pay the required

deposit on one hand, and being able to pay the monthly mortgage installments on the other hand. The former is an issue of being able to access housing while the latter relates to ability to maintain the ongoing cost of the housing. The mortgage lender would normally satisfy itself that the household would be able to meet the two aspects before it can advance credit.

There is yet a different view of the concept of housing affordability which does not consider income or ability to pay Glaeser and Gyourk (2003) have argued that in conceptualizing housing affordability the role of housing costs should be separated from the roles of poverty which they said, is not a housing issue. The researchers conceived housing affordability as a relationship between housing prices and the physical construction cost of housing as against a relationship between income and housing costs. They also conceived the gap between housing prices and the physical construction costs as a measure of affordability. As they put it; "To us, a housing affordability crisis means that housing is expensive relative to its fundamental cost of production – not that people are poor" (p21). They further contended that the relevant benchmark for measuring housing affordability should be the physical construction cost of housing rather than the ability to pay a certain proportion of income.

The 'ability to pay' is a fundamental element in defining or measuring affordability. The growing difficulties which households face in dealing with the interaction between their housing cost and their incomes have largely contributed to putting housing affordability at the fore of housing policy debates. If households were to obtain acceptable standard of housing within their incomes without entering into financial difficulties or placing pressure on other needs, housing affordability would probably not have been such an important policy issues or attracted such widespread public concerns. Affordability conceptualization and analysis should relate housing cost to the financial ability of the people who consume the housing. In fact, notwithstanding that housing affordability is conceived and measured in several different ways, the different conceptualizations and measures in some way link affordability to the ability of people to pay their housing. As Stone (2006a) has asserted, affordability is a relationship between people and housing rather than an inherent feature of housing. Therefore, the conceptualization of housing affordability as a relationship between housing prices and housing construction costs is difficult to appreciate. House prices may not be appreciably higher than construction costs but yet unaffordable to some people. By this concept, such houses are affordable, but to these people they are nevertheless not affordable. Therefore, conceptualization has to relate affordability to people's ability to pay.

It is evident from the literature review that housing affordability is a difficult and complex issue to define and conceptualize. Nonetheless, the scope of the research has been widening with researches developing concepts to buttress their perceptions of the term. One of the most widening with researchers developing concepts to buttress their perception of the ter. One of the most widely recognized of such developments is Stone's (1993) 'shelter poverty' concept. The concept is rooted

in the residual income concept of housing affordability. Its logic is that housing costs in general make the first claim on the disposable income of a household, leaving non-housing expenditures to adjust to what is remaining. So, a household would be considered to be experiencing housing affordability problem when it is unable to meet its non-housing needs at a minimum level of adequacy after paying for housing cost.

The concept recognizes that to achieve an equivalent material quality of life, a larger household would need a greater proportion of its disposable income for non-shelter necessities than a smaller household of comparable disposable income would. Similarly, a lower-income household would require a higher proportion of its disposable income for non-shelter needs than a higher-income household of comparable size would. Accordingly, to meet their no-housing necessities at the minimum level of adequacy, larger and lower-income households can afford less for housing than smaller and higher-income, households of the same income and size respectively can. Therefore, as against the fixed percentage affordability standard of the conventional approach, the concept advocates a sliding scale standard which takes into account the costs of minimum standards for non-housing necessities, with household size and income as the main parameters. In effect, the affordability standard of the concept takes the differences in household income and composition into account. Households whose housing costs are more than they can afford under this standard are experiencing a squeeze between their incomes and housing costs which leaves them unable to meet their non-housing needs at the minimum level of adequacy. They are therefore 'shelter poor'. Thus, "shelter poverty is a form of poverty that results from the burden of housing costs rather than just limited resources" (Stone, 1993, p34).

Similarly, Kutty (2005) developed the concept of housing-induced poverty which is a variant of stone's shelter poverty concept to describe the situation in which a household after paying for housing cannot afford the 'poverty basket of non-housing goods'. Such a household is designated as being in housing-induced poverty. Kutty assumed the basked to be two-thirds of official poverty line. The affordability measure developed from the concept focuses on households deprived of their necessities because of their housing expenditure/the measure does not identify households that spend more than the benchmark 30 percent of income on housing but can still afford basic needs as having a affordability problem. This concept like Stone's shelter poverty concept focuses on the standard of living but whereas the shelter poverty measure is linked to the US Bureau of Statistics Lower Budget Standard, the shelter-induced poverty is linked to the US official poverty line.

From these two concepts, housing affordability is viewed in terms of non-housing necessities which the household may forgo in its bid to secure suitable housing. If what is forgone is more than the socially acceptable level, then there is affordability problem, otherwise the housing is affordable notwithstanding what proportion of income the costs may constitute. The concepts also suggest that housing affordability is a poverty issue. Like their underlying residual income concept of housing

affordability, the concepts are particularly concerned not with housing cost per se buy with the impoverishment of people by the housing cost. If people are not impoverished by their housing cost, then there is no problem, whatever the level housing cost may be.

It must be emphasized that the context in which housing affordability is define is important not only because of conceptual differences, but also because of housing tenure differences. Affordability is a different issue for renters and for owners. The renters, it is an issue of meeting the rental costs involved in obtaining housing whereas to owners, it is a question of meeting the costs of homeownership. Even in the context of homeownership, affordability presents different problem to households wishing to access homeownership from those who are already on it. To the former, the problem is satisfying the requirements to access a mortgage to buy or build a home, or to accumulate enough savings and income to build one, whereas to the latter, it is the issue of meeting the on-going costs of homeownership such as mortgage payments. Thus, the definition and conceptualization of housing affordability naturally reflect the authors' divergent interest and focus as well as the varied contextual applications of the term. Accordingly, there are various conceptualizations and a precise definition has not been possible. Housing affordability infect a very slippery thing to attempt to grab (Bourassa, 1996).

Despite the difficulties in defining and conceptualizing housing affordability, the literature reviewed indicates that housing affordability relates people's income to their housing cost albeit in various ways. The underlying philosophy is the ability to obtain 'suitable' housing at affordable costs. Housing affordability is therefore generally regarded as an issue of income and housing cost and affordability problem as either income problem or housing cost problem, or both.

2.2 Affordable Housing

Another important term in the housing affordability discourse is 'affordable housing', which policy makers currently use to express the affordability of housing (Nwuba 2015). However, like; 'housing affordability', 'affordable housing' is not a precise concept both in the academic literature and in policy formulation and defining it is difficult. It has been defined as a "generic term to cover any low cost housing (irrespective of tenure). Defined without reference to dwelling occupants but intended to meet agreed affordability benchmarks' (Gabriel, et al, 2005 p8).

There is no universal definition of affordable housing as there are variation across countries as to standards for determining what is affordable. In the UK there is no statutory or agreed definition of what constitutes 'affordable housing', a situation that raises problems in discussions on the issue (Wilson & Anseau, 2006). Moreover, it has been observed that the use of the term 'affordable' in relation to housing introduces mutt ambiguity, covering both housing provided with various forms of subsidy and those of any tenure considered by analysis of relevant actors, to the affordable to a particular household or a group (Wilson & Anseau, 2006, Chartered Institute of

Housing (CIH), 2002). In memorandum of affordable housing' submitted to a UK Parliament Select Co mmittee in 2002, the Royal Institution of Chartered Surveyors (RICS) stated that local authorities do not have a common approach to defining affordable housing that there is a wide range of language and approaches in use. They observed that definitions vary with different regions from less than minimum market price" to "low cost market" and "subsidized irrespective of tenure". Importantly, the RICS further stated that in some of those places what is classified as affordable housing will often not be affordable to local residents. Nevertheless, the term is used in the UK to include social-rented housing, and other forms of subsidized housing such as intermediate affordable housing (Burgess, Monk, & Whitehead, 2007' Communities and Local Government, 2006)

From the literature reviewed, a distinction can be drawn between 'housing affordability' and affordable housing' – two conceptually different but complementary terms. While housing affordability is a measure (of ability to access housing and/or sustain the costs) based on given criteria, affordable housing refers to housing that the cost is within the ability of some defined group to pay also based on some specified criteria, such as a given percentage of income. Affordable housing is usually provided to improve housing affordability or reduce housing affordability problems. The extent of availability of affordable housing influences the level of housing affordability. In the UK for example, the contribution that social housing at submarket rent makes to housing affordability is part of the justification for its provision (Hills, 2007). Since affordability is a local market issue, what may be considered affordable housing will depend on the local housing and labour markets. In fact, affordable housing should be available to eligible households, at a price low enough for them to afford as determined with respect to local house price and local incomes (Communities and Local Government, 2006).

2.3 Housing Stress

Housing stress is a concept in Australia's housing affordability literature. It is used as an indicator of the number of households that are potentially at risk of housing affordability problems (Yales, et al, 2007). The concept of housing stress is the lens through which policy makers in Australia view the need for assistance and so it is income dependent, seeing housing affordability as a challenge to only the poorest households (Beer, Kearlins, & Pierters, 2007). Housing affordability measurement in Australia's housing policy is mostly confined to the bottom 40 percent of the income distribution, classified as the lower income. Thus, the most common method of measuring housing stress defines a household as being in housing stress if it spends more than 30 percent of its income on housing expenditures and belongs to the bottom 40 percent of the income distribution (Nepal, Tenton & Harding, 2010). Similarly, mortgage stress is defined to occur when a household in the lowest 40 percent of the income distribution has a mortgage that is in excess of 30 percent of their income (Australia Housing and Urban Research Institute AHURI) (emphasis added). However,

the level at which housing stress is considered to occur does not appear to be precise. In contrast to the excess of 30 percent of income definition, some other definitions indicate that housing stress occurs when the ratio of housing costs no income for the group of households is 30 percent or more (Johnson, 2008, Yates, 2007).

2.4 Incremental Housing Development

The housing market is characteristically inefficient. The result is that the markets often fail to meet the housing needs and many a time even demands. The situation is exacerbated by market failure.

In the advanced economies of the West, both the housing market and the housing finance sector are well developed and mortgage facilities are readily available to households to purchase as finished products. In contrast, in many developing countries, the housing market and the housing finance sector are underdeveloped. The finance sector is incapable of providing the much needed credit to the housing markets and the housing markets are limited in their ability to provide affordable completed homes. So, housing is rarely provided as a finished product but rather as raw materials, which households have to combine through incremental building process to get the finished product. The UN-Habitat (2008) has noted that because the investment required to buy a finished house is often quite beyond the means of low-income households, housing for them becomes a socio-economic process involving a self-build incremental construction.

Individual housing development can be defined as a process through which an individual seeks to own a house, through their own initiative in buying the land and overseeing the construction of the house. The construction of the house usually takes an incremental approach and is built over long period of time, sometimes, individual house developers move into incomplete house and continue the development process slowly depending on the availability of fund. The motive for such a mode of housing ranges from the urge to own a house, on the other hand and the underlying basic problem of inadequate housing on the other. Inadequate housing has led to high rent charges for available housing and has been a key factor for the need to develop individual housing, ideally individual house development is initiated and financial by the owner and is built by a small contractor. **Keivan and Merna (2001)** argues that given the low level of development of the markets in developing countries, it can be assumed that the most common form of housing provision through the formal private sector is that initiated by an individual owner occupier and designed and built by commissioned architects and builders.

The key issues that face housing developer in Benin City and other Nigeria urban areas including: Rapid population growth (urbanization) land tenure problem, inadequate financing, inadequate infrastructure and no performing institutions. Problems of delayed land – use planning and non-existent infrastructural development compounded by unclear land tenure and ownership that

has a negative effect on the ability of private developers, large and small scale, to access finance for housing development. The inadequacy of service land for housing development and the strict building bye-laws especially for low-cost housing has led to acute housing shortage in most urban areas.

However, although the housing of the poor and the low-income households is usually provided through incremental building, it is necessary to point out that the incremental system of housing is not exclusive to the poor and low/moderate-income groups. In Ghana for example, incremental housing is used by both the lower and the higher income groups (Derban, W.K, Derban, D.K, Ibrahim. G; Rufasha, K, 2002). In Nigeria, it is the usual practice of homeownership and it is used by both the higher and the lower income households. The difference is the period of building and the quality and size of house. The higher income groups generally complete their building process within shorter periods and produce larger and better quality houses than the low income groups. Because households usually build their homes themselves and fund the building from their own resources, housing will of necessity be of incremental process in the majority of the cases. Not many households can afford the funding required to build their homes. Even those that can afford it will often want to utilize part of such funds in other areas such as running their businesses. In fact, in Nigeria's urban areas, most buildings of substantial quality which have the necessary legal permit and produced by households through the incremental building process.

Moreover, the incremental housing system is also not limited to an initial production of a 'core unit' to be later expanded or upgraded. It could be a gradual construction of the entire building in its complete design to completion. This is common in urban areas of Nigeria. Thus, the term incremental housing as used in this thesis is in the context Nigeria's housing practice described earlier. The key features are that it is house-hold driven, flexible, financing is through informal sources, and usually household's income and savings, and it is gradual over a period.

It has been asserted that the incremental housing system is necessitated by lack of funds by the low-income who due to government's inability to provide housing for them and in the absence of social housing, resort to building their homes incrementally (Bilitir, 2008). Although this is part of the problem, there are other issues that give rise to incremental house building in Nigeria. One factor is the failure of the market to provide adequate affordable housing as a finished products. Another issue is the inability of most households to afford available market housing due to the high costs of the houses amid low incomes. Then there is the problem of lack of affordable mortgage products.

2.5 Formal and Informal Housing

In housing studies, the terms formal and informal are used in a variety of ways to distinguish between activities occurring within the ambit of the regulatory framework and those occurring outside it. The terms are used in relation to land transactions, settlements, housing developments,

housing finance and housing transactions. Thus, attempts have been made to distinguish between formal and informal housing. Formal housing or conventional housing represents housing produced through the official channels of recognized institutions such as banks, planning authority and land developers and observing formal legal practices and planning regulations (Keivani & Werna, 2001a). On the other hand, informal housing is housing that does not conform to regulations on land ownership, zoning and land use, and building construction (Amott. 2008).

In general, "housing is described as informal when it does not conform to the laws and regulatory frameworks set up in the city in which it occurs" (UH-Habitat, 2003b, p104). Non-conformity could be in several ways including being built on land intended for another use' not conforming to all the standards stipulated for the area' being build on land not owned by the occupier and without the permission of the owner; and not being subject to building inspection or planning permission (UN-Habitat, 2003b). The UN-Habitat further stated that the two most obvious problems facing occupants for informal housing are the two related issues of provision of services and tenure security. In effect, informal housing is associated with illegality in housing development or settlement. This illegality could arise from illegal occupation of land or from non-conformity to development regulations or both. Therefore, informal settlement is often used as synonymous with illegal settlement and informal housing development is often considered illegal development.

The main distinction between formal and informal housing is in the conformity with the legal requirements for land development and transactions in the housing market. Formal housing conforms to regulatory frameworks. Housing production conforms to planning regulations involving acquisition of valid title to land, obtaining building permission, and observing building codes, and other land use and building regulations. One the other hand, in the informal housing sector, land may or may not be acquired through due process but housing is produced without reference to planning and land use regulations. Similarly, transactions in the formal housing markets are conducted within official regulations and legal procedures while those in the informal markets are not.

Moreover, as UN-Habitat (2003b) has stated, formal housing can become informal by process of extension and alteration by users without permission or in ways that do not conform to standards. Indeed, in many cases, a clear lines between the formal and the informal housing is difficult to draw. For instance, in Nigeria, the bulk of housing development by individuals and households that conform to planning regulations and land laws is carried out using informal finance and land and housing transactions often cut across the formal and informal markets.

Furthermore, simply equating informal housing with illegal housing tends to obscure the basic causes of informality and the responsibilities of government to the citizens. Much of informal housing results from failure since in the formal housing sector and in governance as a whole. Mabogunje (2005) has argued that high rate of urban poverty has been responsible for – heightened overcrowding and extensive development slums and shanty towns in African cities with the result

that ‘informality’ has become the means by which regard to housing. Also, in the Forward to ‘The Sate of African Cities, 2010’, the Executive Director of UN-Habitat, Joan Clos, stated that the continued urbanization of Africa poverty has meant that growing numbers of Africans are forced into informality either as a sheer survival strategy or because their living environments are defined by slums and non-serviced, unregulated urban settlements, in fact, the urban poor and the substantial segment of the low and moderate-income groups have no option but to access land and housing through the informal market, the only realistic alternative for meeting their needs (Durand-Lasserve, 2006). In dealing with the problems of informal housing, these issues should be properly addressed.

Indeed, informal housing represents a form of solution to the enormous urban housing problems of many developing countries as it provides shelter to a substantial proportion of households. However, informal settlements also have huge environmental costs. Yet, the approach to dealing with the problem of informal settlements should be to treat them less as part of the contributors and more as part of the solutions to urban housing problems.

In many cities in Nigeria, informal settlements often develop because governments have failed to produce planned residential layout for development and in most cases where they do, the plans remain on paper for so long and infrastructure is not provided. Consequently, households and communities are often compelled to resort to building in unplanned areas and providing infrastructure themselves, or even making their own layouts. Interestingly, buildings of substantial quality are erected in many of these layouts. Investigations from the Kaduna State Ministry of Lands, Survey and Country Planning by the researcher in 2011 revealed a list of 39 of such ‘illegal layouts’ in Kaduna metropolis. The information obtained during the investigation however suggests that the government has come to recognized the inevitability of such settlements, especially for those on legally acquired land. The government has categorized the ‘illegal layouts’ into two – those that could be formalized which numbered 25 and those that could not be formalized which numbered 14, if the government will step us activities in urban planning and the provision of infrastructure and provide access to land in planned areas to households at minimal costs, the problems of informal and illegal settlements and layouts will be substantially reduced.

2.6 Housing Affordability Measures and Indicators

As housing affordability is not a precise concept and is dealt with in different contexts, there is no standardized approach to its measurement. There are various alternative measures that researchers and policy makers apply to assess affordability, and scholars are not agreed on the most appropriate approach or method. Moreover, affordability is driven by a number of variable and its analysis is hindered by data constraints such as variations in the distribution and construction of data used in the measurement (Duffy, 2004). Consequently, alternative measures of affordability can reveal substantially different results.

Housing affordability measures are used for a number of purposes. Gabriel, et al, (2005) identified the principal purposes as the measurement of the performance of the housing system, assessment of underlying housing need, and assessment of financial wellbeing of beneficiaries of housing assistance. Others are the identification of policy alternatives to address affordability problems, part of qualification criteria for financial institutions mortgage, and guiding the actual provision of affordable housing. The purpose of the measurement, policy guidelines, and the orientation of the analyst largely determine the method applied.

There are two main approaches to measuring housing affordability – the ratio measures and the residual income approach. Within the two main approaches, there are various models. The principal approaches are discussed in the section that follow.

2.6.1 Ratio Measures

The ratio approach is the conventional and most widely used housing affordability measure. The approach conceives housing affordability as a measure of the relationship in ratio (or percentage) terms between housing costs and household incomes. This relationship could be the ratio of house prices to income (house price-to-income ratio) or the ratio of expenditures on housing such as rent or mortgage payments to income (the housing expenditure-to-income ratio). The values are taken at different levels such as the median, quartile or other distribution, or at household level.

Application of the ration measures involves methodical questions as to the choice of ratio that is, the appropriate housing expenditure-to-income ratio. In fact, defining the benchmark for affordability is one of the most important challenges of the ratio approach. Measurement is with reference to a 'rule of thumb' benchmark. However, the proportion and how it is applied caries between countries. In the US, the standard threshold for affordability is 30 percent of income for housing including utilities, above which the household is referred to as being 'housing cost burdened' and those spending more than 50 percent as seriously or severely cost burdened (Belsky, Goodman, & Dew, 2005).

The housing expenditure-to-income ratio is applied in various sectors of the economy for a variety of uses. It is used in research for calculation of the size of the groups experiencing housing affordability problem; in the financial sector to evaluate the ability of a potential borrower to service a mortgage, and in public housing programmes, to assess qualification for social housing (Heylen & Haffner, 2010).

The ratio measures have a number of variants, such as the house price-to-income ratio (PIR), the rent-to-income ratio (RIR), the mortgage to income ratio (MIR), and the qualifying income (QINC). In measuring the affordability of rental housing, the conventional model is the rent-to-income ratio. For affordability of homeownership, the house price-to-income ratio (PIR), and the

qualifying income (QUINC), are used to determine various aspects of affordability. The next section reviews some of the ratio affordability measures.

1) House price-to-income ratio, PIR

The house-price-to-income ratio gives a general indication of whether house prices are affordable in relation to incomes. It provides a general guide as to the ability of households to access homeownership and compares house prices and household incomes at some given levels such as the median. The measure has the advantage of being easy to compute and apply.

The house price-to-income ratio at lower quartile level (the ratio of lower quartile house price to lower quartile earnings) referred to as the 'lower quartile affordability ratio' is the 'standard' and most widely used housing affordability indicator in the UK (National Housing and Planning Advice Unit (NHPAU), 2010). However, NHPAU noted that while the indicator is a straightforward and simple measure of how expensive housing is in relation to earnings, it does not provide a direct indication of either how easy or difficult it is for households to access housing or meet their on-going housing costs. It has also been argued that the house price-to-income ratio has a limited applicability as a housing affordability measure over time because it does not take account of interest and mortgage repayments (Jones, Watkins, & 2011).

2) Rent-to-Income ratio RIR

The rent to income ratio, RIR, measures determines the percentage of income that a household spends on its rental housing costs. It deals with the on-going cost of rental housing. It uses the ratio of rent to income both as a measure and an indicator of affordability for tenants, given that a household should not spend more than a prescribed percentage of its income on housing. The model views affordable rental housing as one that does not cost more than the prescribed rule of thumb percentage of household income.

The rent-to-income ratio is also used as a policy decision instrument in which public housing authorities apply it in fixing rent on subsidized rental housing and in eligibility criteria for such housing, which excludes households earning above specified income. In contrast, as a business decision instrument, some private landlords and house agents use the measure to determine who could afford their houses and therefore could be selected as a tenant, excluding prospective tenants earning below a specified income. The World Bank and the United Nations recommended the rent-to-income ratio as a key indicator for rental housing affordability and defined it as "the ratio of median annual rent of a dwelling unit and the median annual household income of renters' (Mayo & Stephens, 1992; United Nations, n.d.)

2.6.2 The Residual Approach

Stone et al (2011) also stated that in principle, the residual income method evaluates the adequacy of the residual income (the income left after meeting shelter costs) to non-shelter needs but by procedure, it subtracts the appropriate non-shelter monetary standard from the disposable income to arrive at the maximum amount a household can afford for its housing without undue pressure on its non-housing needs. They asserted that the resulting figure is the amount affordable for rent and not the amount available for rent as stated by Burke and Ralston (2003). The residual income method calculates how much of the income is left over for housing mortgage or rents after taking the relevant expenditure items for different household types into account; if the amount left is insufficient for rents or mortgage payments, then a household has a household has a housing affordability problems (Burke, Stone & Ralston, 2011).

The logic of the residual income approach is that housing affordability indicator should be the ability to afford a minimum standard of living rather than ability to pay a prescribed percentage of income for housing. Following this logic, housing affordability will be influenced by not only household income and housing costs but also by the cost of non-housing goods, which for a particular household will largely be influenced by the size and composition of the household. One important implication of the residual income affordability measure therefore is that one has to look beyond the housing and labour markets to find solutions to housing affordability problems. Dealing with housing affordability problems revealed through the residual income concept may therefore be an issue for the larger consumer market rather than just the housing and labour markets.

2.6.3 Housing Affordability Index, HAI

Housing affordability measures are often computed as indices commonly referred to as housing affordability index which serve as indicators of various aspects affordability. This is often the case with the more macro housing affordability measures. Such measures currently in use include the National Association of Realtors (NAR) Housing Affordability Index and the Housing and Urban Development Housing Affordability Index in the United States, the Real Estate Institute of Australia and AMP Home Loan Affordability Index, the commonwealth Bank of Australia and the Housing Industry of Australia Housing Affordability Index.

The National Association of Realtors Housing affordability Index, HAI uses the ‘typical family’ and the ‘typical home’ for its assessment of affordability. As described on the website of the association, the index assesses whether a typical family could qualify for a mortgage loan on a typical home. A typical family is one that earns the median family income as per US Bureau of Census report while a typical home is the National Association of Realtors calculated national median priced existing single family home. In effect, the index measures the family income relative to the income needed to qualify for mortgage to purchase a median priced single family home.

The computation of the index assumes 25 percent qualifying ration and a down payment of 20 percent of the price of the home. Therefore, monthly payment of the principal and interest will be a maximum of 25 percent of the median family monthly income. An index value of 100 implies that a family earning the median income has just the exact income to qualify for a mortgage on median – priced home. An index above 100 means that a family earning the median income has more than the income required to qualify for a mortgage on a median priced house, assuming a 20 percent down payment. An index of 150 for example indicated that a family earns the median family income has 150 percent of the income necessary to qualify for a conventional loan covering 80 percent of median priced existing single family home. A higher index implies greater affordability.

Although the NAR index is acknowledge to possess the advantage of simplicity and consideration for mortgage rates, it has been criticized as not being a comprehensive measure as it does not account for total housing costs, and for its limited usefulness at local levels, as well as non-applicable to measuring rental housing affordability (Jewkes & Delgadillo, 2010). It is important to note however, that individual housing affordability indices or models should not be expected to be so comprehensive as to cover all aspects of affordability. Some are designed for specific applications such as owner-occupier tenures while others are suitable for rental tenures. Similarly, some models measure the affordability of access to homeownership while others assess the affordability of the on-going costs.

2.6.4 Ratio vs. Residual Income: Criticisms of the Ratio Measures

The ratio measures has attracted criticisms in the literature both in the use of percentage of income for housing costs as an indicator of housing affordability and in the 30 (and other) percent rule of thumb benchmark as affordability standard.

The criticism of the ratio approach and the contention about the most appropriate measure and indicator of affordability have particular have intense among scholars advocating for the residual measure as a more appropriate approach to measuring housing affordability. These scholars have argued that the traditional affordability measures, the ratio approach, is conceptually and logically flawed and that the normative standard of percentage of income for housing is arbitrary as there is no clear rationale that underpins the benchmark (Hancock, 1993; Stone, 1993, 2006a; Burke, et al, 2011). This school of thought argues that the residual income approach is more appropriate as it recognizes that different types and sizes of households would require different amounts to maintain a minimum standard of living that cannot be explained by a ratio or percentage of income basis.

One of the most persistent critics of the ratio measures and of the most forceful advocates of the residual income approach as an alternative in the contemporary housing affordability literature is Michael Stone. In his works (1993, 2006a) he showed the weaknesses of the shelter-poverty model. Stone contended that neither the concept of housing cost-to-income ratio nor the particular ratio or

ratios applied in its measurement has any logical or theoretical basis. He pointed out that the rationale for the conventional standard and its benchmarks has been built on empirical interpretations of actual housing expenditures of households. Such an approach, he augured, provides no means for assessing whether households are achieving minimum standards for non-shelter necessities after paying for housing, which is the essence of housing affordability measurement, he contended further that the ratio approach gives a deceptive picture of household' experience of the relationship between incomes and housing cost as it overstates the affordability problems of higher income families and understates those of large and lower income ones. Stone maintained that the actual housing expenditures of most people are not what they can realistically afford. Insisting that the ratio concept is logically flawed, Stone argues for the conceptual soundness' residual income approach.

In making a case for the residual income approach to affordability measurement, Kutty (2005) argued that focusing on whether a household can afford the basic non-housing goods after paying for housing is important and that the ratio measures do not do that. She contended further:

From a policy standpoint, it is important to understand which households cannot pay for non-housing needs after they pay for housing because they are likely to be in a more precarious position than those that have high cost burdens but can still pay for minimal non-housing consumption. A such goods (p116).

Furthermore, Hunichanski (1995) took the argument in a different dimension. He contended that in evaluating the suitability of the ratio approach to housing affordability, the question should be whether it does in a reliable and valid manner, what it is used for or expected to be measuring rather than making general statements about its validity, usefulness, or appropriateness. He identified six distinct applications of the housing expenditure-to-income ratio, namely, description of household expenditures; analysis of trends, administration of public housing subsidies, definition of housing need; prediction of the ability of a household to pay for housing, and selection criteria in the decision to rent or provide a mortgage. Hulchanski argued that the housing expenditure-to-income ratio could be used in a reliable and valid manner in the description of household expenditures and analysis of trends without assertions about affordability or a certain ration being appropriate or affordable, as well as in the maximum income criteria for eligibility for public housing subsidies. On the other hand, he contended that the application of the housing expenditure-to-income ratio is invalid and unreliable in the definition of housing needs, measuring ability to pay for housing and in minimum income criteria for selection of tenants and granting of mortgages.

The ratio measure has also been considered unsatisfactory for failure to recognize that the lowest income households would not have sufficient residual income even if they spent so little on housing, whereas higher – income households would likely have more than sufficient residual income even if their housing expenditure was in excess of the prescribed benchmark ratio (Bourassa,

1996). Additionally, the use of the ratio measure may result in understanding or overstating the actual amount a household type can afford for housing because the measure does not take account of the taxation and expenditure requirements of different household types (Burke, et al 2011). Thus, a single ratio cannot be suitable for all household because housing and non-housing costs vary for different household types (Chaplin & Freeman, 1990). Moreover, high housing expenditure-to-income ratios could be an indication of strong taste for residential comfort (Thalmann, 2003).

Although criticizing the ratio approach for its several drawbacks, other studies have maintained that he measures have their advantages (Belsky, Goodman, et al, 2005; Jewkes & Delgadillo, 2010). Belsky, Goodman, et al identified the strengths of the approach as being easy to compute and simple to understand, applicability across a range of places to track affordability changes over time and explore differences across households. They also stated that is based on readily available data and is very direct as it measures actual outlays of households relative to their actual incomes. However, they criticized the measure for failure to account for the trade-offs that households make in terms of location, neighbourhood quality and housing quality to bring down their housing costs. Inability to consider when high housing cost-to-income ratio is a matter of choice, failure to capture housing quality changes, as well as the rule of thumb 30 and 50 percent affordability standards. The authors noted that the 30 percent benchmark emerged from debate in the US over how much recipients of federal assistance should pay towards their rents while the 50 percent standard arose because it was considered a severe detriment if very low income households spend more than half of their income on housing. Nonetheless, while Jewkes and Delgadillo recommended the use of an adopted residual income approach, Belsky, Goodman, et al, advocated for the development of models that control for quality and other factors ignored by the conventional methods.

Similarly, Yates and Gabriel (2006) agreed with the criticism that the choice of 30 percent benchmark is arbitrary but suggested that the ratio-based 30/40 rule used in Australia is ‘a sound anchor measure’. They argued that it is accessible, simple to interpret, and has public appeal, clearly informing about the degree of the issue it represents and providing home approach in it consideration for the impact of the impact of the structure of household on household needs as it accounts for differences in non-housing needs for different household types. On the other hand, they contended that this advantage is at the same time a weakness as it requires judgment to determine the non-housing needs. They argued that the residual income measures have additional weakness of possibility of complexity and more burdensome data requirement.

Ironically, some of the most fervent critics of the ratio approach have recommended its continued use in ‘broad measure of affordability’ (sale of affordability problems across all household) (Burke, et al. 2011). Their recommendation was based on their finding that for a broad measure of affordability, results from the method are not so different from those of the residual

income method, and in consideration of the case of computation of the ratio method and the complications of the residual income approach, they however, stated that when the analysis is disaggregated into household types and tenures, the residual measure reveals different results that the researchers consider a more accurate reflection of the household experience. Some other studies have also shown that analyses with the ratio and residual income methods have yielded contrasting results (Heylen & Haffner, 2010).

Overall, the residual income measure is a better approach than the ratio measure. The affordability indicator of the residual income measure is more rational than that of the ratio measure. Basing affordability on a monetary amount is more logical than a percentage of income which in reality may not reveal adequacy or otherwise. A proportion of income may be sufficient for some households but not for others due to differences in household income and size. The proportion of housing cost to income is not a realistic indicator of hardship which the measurement of housing affordability should normally consider. For high-income households, a high proportion of income for housing costs may not place them in hardship. On the other hand, low-income households may experience hardship even if the proportion of their incomes they spend on housing is lower than the benchmark

In addition, by consideration the impact of household size and income on household housing and non-housing needs, the residual income measures deal with the issue of choice. Household may by choice rather than necessity, deploy a greater percentage of its income to housing than the benchmark. If the household still has sufficient residual income to meet its non-housing necessities, then, it should not be considered as having a housing affordability problem. Moreover, if housing affordability is a major determinant of both the cost and standard of living as Cox and Pavletich (2010) have asserted, then a method such as the residual income that links housing affordability with standard of living through the evaluation of the adequacy of income available for non-housing necessities, will be appropriate.

However, the difficulties in operationalising the residual income approach especially with respect to its onerous data requirements and establishing the minimum standard for the non-housing needs cannot be over-emphasized. This is particularly so in a developing country like Nigeria where availability of reliable data for policy actions and research is a persistent challenge. Standard family budgets such as those computed by the US Department of Labour Statistics essential to set socially-defined levels of non-housing expenditures for a minimum adequate standard of living are not readily available in Nigeria. On the other hand, poverty line that is also used to define minimum standard for non-housing necessities is available only at national level and so can only be suitable for national housing affordability analysis. Meanwhile, the bulk of housing affordability analysis is at the local housing market levels. Thus, defining a normative standard for residual income and therefore operationalising the residual income as an affordability measure will be difficult. It is

therefore expected that the ratio approach to housing affordability will continue to be primary measure in Nigeria in the foreseeable future.

2.7 Determinants of Housing Affordability

To a large extent, housing choice depends on affordability and taste. However, the exercise of households' housing choice is limited by their affordability situation.

To effectively deal with the issue of housing affordability, it is necessary to establish the determinants of affordability and subsequently the factors that cause housing affordability problems, and understand the effects of the problems. This is important because housing problems generally have effects beyond the household level to the wider economic and social systems. Housing affordability is generally seen as an issue of income and housing costs. However, there are several other variables that contribute to determine households' housing affordability outcomes. Yates, et al (2007) identified the fundamental determinants of housing affordability outcome to include house prices and rents, demographic factors, household income, interest rates and the interaction between these variables.

Also, Aribigbola (2011) found a significant relationship between households' income levels and their ability to pay for housing in Akure, Southwest Nigeria. Again, findings from other studies in Nigeria have demonstrated a relationship between income and affordability of access to homeownership (Halid & Akinnitire, 2013; Nwakanma & Nnamdi, 2013). Yet, another study has noted that factors such as low incomes that make savings difficulties, escalating cost of house building materials, and difficulties in accessing land constitute obstacles to individual homeownership in Nigeria (Udechukwu, 2008).

Furthermore, Stone (1993, 2006b) has demonstrated that income and household size are key determinants of household housing affordability outcomes with income having a positive influence while household size has negative influence. In addition, some studies in the UK have suggested that the affordability of access to homeownership is associated with the number of houses that are built, house prices and lending policies (Barker, 2004; National Housing and Planning Advice Unit (NHPAU) 2009, 2010; Wilcox, 2007). These factors are however particularly applicable to countries that have functional mortgage markets in which households purchase their homes with mortgage. In such market lending policies influence access to mortgage funding so combine with housing supply and prices to condition the affordability of housing.

In addition, findings from Gyourko and Linneman (1993) suggested a relationship between a household's level of education and income and their affordability of owner-occupier market housing in the US. The findings also associated housing affordability outcomes with real wages relative to real home prices. Elsewhere, researchers in Canada have found that household income is a key determinant of housing affordability of housing affordability (Luffman, 2006; Rea, et al 2008).

Similarly, a housing affordability inquiry in New Zealand reported that high rents could make it difficult for renting households to access homeownership as it poses constraints on the ability of renters to save sufficient deposit for home purchase (New Zealand Productivity Commission, 2012). The report indicated that financing costs and house price relative to income are some of the factors driving homeownership affordability, and that affordability generally increases with age which suggests a reflection of higher incomes that accompany greater work experiences. Likewise, a study in Beijing, China suggested a relationship between the affordability of homeownership and house prices relative to household incomes (Yao, 2011).

The literature seems to suggest that household income is the most fundamental determinant of affordability of housing and in particular, access to homeownership, indeed, researchers have emphasized the significance of income and wealth as predictors of transition to homeownership (Di & Iiu, 2005). Likewise, Burke, et al, (2007) asserted that income is a key driver that facilitates access to homeownership and that the relationship between housing costs and income is a key marker of the potential extent of affordability constraint that households face. Furthermore, Whitehead and Williams (2011) stated that rising wealth and increasing incomes support the realization of housing aspirations and underpin the growth and stability of homeownership.

The essential role of income and wealth (savings) is stimulating access to homeownership has also been confirmed by studies in New Zealand which revealed that housing affordability problems demonstrated in difficulties in saving for a house deposit due to financial constraints were the major reason why renting households were not moving to homeownership (Hargreaves, 2003b). The findings demonstrated the importance of household income as a key determinant of households' housing affordability outcomes. Similarly, stressing the importance of wealth in housing demand, Rodda and Goodman (2005) pointed out that households who have wealth could still meet their mortgage payment in temporary interruption of their income flow, and that savings were necessary for down payment. They further asserted that down payment constraint was the biggest obstacle for most prospective homebuyers.

Why is income such a fundamental variable in determining the housing affordability outcomes of households? Income is perhaps the most significant measure of purchasing power and so it plays a vital role in household's ability to pay for its needs. Households income is an important risk measure that lenders use in credit underwriting. It is a flow that enables consumption and contributes to changes in household wealth and net worth, and an important element in the measurement of economic well-being (Organisation for Economic Co-operation and Development (OECD), 2003). Although households with significant wealth or savings could still meet their housing needs during temporary disruption of income as Rodda and Goodman (2005) have stated, it is income that help to build up wealth and without continued income flow, a household's wealth (savings) will experience depletion.

In general, from the literature reviewed, several variables determine the affordability of housing in general and of homeownership, in particular. The determinants of homeownership affordability centre on households' demography and economic situations as well as various elements of housing cost. They include household income, wealth (savings), household sized, housing expenditure, house prices, and housing costs/prices relative to income, interest rates, current rental expenditures, land costs, and education. The affordability status of a household is a demonstration of the interaction of these factors as they relate to the household. These interactions take different forms in various markets resulting in varying causes of housing affordability difficulties.

2.8 Causes and Consequences of Housing Affordability Problems

Deteriorating affordability situations result from the worsening of the factors that contribute to affordability and their operation in the housing markets. Finding from Yates, et al (2007) suggested that the origins of housing affordability problems are embedded in the manner of operation of housing markets and in the pressure that household growth and income impose on them. At household level, housing affordability problem is a consequence of household being compelled to take housing decisions that affect them adversely due to housing stress (Burke, et al, 2007).

The factors which cause housing affordability problems operate at both micro and macro levels with their interactions differing across market and periods. Thus, different issues will be responsible for housing affordability problems in different countries and markets. Worsening housing affordability across the EU, for instances, is a reflection of rising rents and house prices, increasing expenditures over domestic energy and lack of tenure choice, particularly shortage of affordable rental housing (pittni, 2012). On the other hand, in the united kingdom, worsening housing affordability has been associated[51] with rising house prices, the demand for larger deposits and lending restrictions (National Housing and Planning Advices Unit (NHPAU), 2008A, 2008B, 2008C; Barker, 2004; Wilcox, 2007). Likewise, Bramley (1994) showed that the affordability crisis the British housing system experienced in the late 1980s and early 1990s resulted from a combination of circumstances including changes in demography, income distribution, housing supply and tenure, with financial deregulation being particularly important. Also, Yamada (1999) attributed housing affordability crises in Britain and Japan to the involvement of the 'strongly commodities' property and land markets in both countries in over extended global capital market.

The need to differentiate housing affordability problems arising from high housing costs and those results from poverty has been emphasized for effective policy response (thalmann, 2003). Some studies have linked housing affordability problems to land use regulations that cause high land and housing prices (Cox & Pavletich, 2012; Glaeser & Gyourko, 2003). Cox and Pavletich contended that from economic evidence, the deteriorating affordability trend in Australia and New Zealand has been a consequence of more prescriptive land use, particularly measures that create land

scarcity. Likewise, findings from Glaeser and Gyourko (2003) indicated that land use regulations are importance factors contributing to worsening housing affordability in the United State due to their influences in driving up housing cost. These contentions are supported by recent findings in New Zealand where the urban planning approach reduce housing affordability in faster growing cities through constraints that create residential land scarcity and place upward pressure on land prices and subsequently increase house prices (New Zealand Productivity Commission, 2012). The findings showed that appreciating land prices have lately been a key driver of house price inflation the country.

On the contrary. Feldman (2001) contended that although regulation results in higher housing prices through restriction of the filtering process, low income is the leading cause of housing affordability problem. He noted that unaffordable housing units in the United State were almost all occupied by the poor. Feldman further argued that even if all regulatory barriers to housing were eliminated, it would not come close to ending existing affordability problems; neither would significant cost reduction reverse the unaffordability situation of the vast majority of renting households. Other studies have identified household income and household structure as the primary drivers of housing problems (Berry, 2006b; Wood & Ong, 2011).

Affordability of housing in an influential factor in family stability, the health and wellbeing of individual household members and the education attainment of children. Providing secure and affordable housing contributes positively to a wide range of social outcomes, often referred to as non-shelter benefits. Improvement in housing affordability could be expected to assist macroeconomic stabilization policies, help to maintain economic growth and competitiveness, and contribute to anti-inflationary strategies through reducing pressure on wages and house prices (milligan, 2005, p6).

In view of the significance of housing affordability, the consequences of worsening affordability are important to the government, policy makers, and the housing market. Deteriorating housing affordability is associated with several specific social outcomes. Studies in the United Kingdom have shown that worsening affordability of homeownership has several consequences. These include increased pressure on the rented sector, rising rents, overcrowding and slum development, widening social inequality, health and environmental problems, mortgage defaults, and unfulfilled aspiration for homeownership (NHPAU, 2008b; Wallace, et al 2009). In addition, the Canada, rental market failure has resulted in widening income gap between homeowners and renters (Hulchanski, 2005). In the United State, studies have revealed that unaffordable housing has adverse effects on children's wellbeing (Harkness & Newman, 2005). Elsewhere, in Australia, Yates (2007a) found financial stress to be a consequence of housing affordability problem. Research has also found a correlation between housing stress and health outcomes households (Beer, Baker, Wood, &

Raftery, 2011). Furthermore, housing affordability problem poses a great challenge to the sustainable development of the built environment. (Aribigbola, 2011).

Considering the consequences of deteriorating housing affordability, it is pertinent that government take decisive measures to deal with the issue. Unfortunately, however, several government do not recognize housing affordability problem than putting measures in place to solve the problems Cox and Pavletich (2010) observed that housing affordability has received considerable attention in the United Kingdom but that no material corrective measures have been implemented. They also noted that there has been less attention in the United State, Canada and Ireland, and that solutions have not been implemented. A study in the UK however revealed that in the past decade, the government has implemented a range of policy measures to improve housing affordability, the core of which has centred on the supply-side (poon & Garrat, 2012). The researchers argued however that the heavy reliance on the private sector for provision of additional housing has reduced the effectiveness of policy changes and that the adoption of 'demand side' housing policies has not done much in increasing the affordability of homeownership. The study also stated that there have been government interventions in Australia to help first-time buyers get on the homeownership ladder. The problem of government intervention is worse in Nigeria where poor governance and limited state resources have made appropriate steps to tackle housing affordability problems continually elusive.

2.9 Nigeria's Urban Housing Sector

Generally, in most countries both the public and the private sectors engage in the provision of housing. However, in developing countries, the private sector dominates the urban housing markets with most of the low and middle-income housing provided through the informal sector while the formal mode of housing production caters mostly for the high-income groups also achieved largely through the private sector (Keivani & Werna, 2001a). In Nigeria, public sector housing providers are the federal and state governments and their agencies such as the housing authorities/corporations and state owned property investment companies. The local government involvement in housing is virtually non-existent. Among operators in the private sector housing are individuals and households, corporate organization, primary mortgage institutions, private real estate developers and housing cooperatives.

2.9.1 The Public Sector Housing

The government is a major stakeholder in housing and therefore plays significant roles in the housing market, it operate in the market directly as suppliers of housing and indirectly as market regulator. For several decades, Nigeria's central and state government have intervened in the housing markets through both direct and indirect means. In direct involvement, for different

approaches to public housing been identified, namely, low-cost housing schemes, slum clearance and upgrading, resettlement upgrading, and site and service schemes (Ogu, & Ogbuozobe 1999). However, public housing provision has until recently centered largely on direct government interception through constructions of dwellings.

Nigeria's public sector housing comprises housing that government provides for its officials and those it provides for the public. In the former case, government officials occupy the house on subsidized rental tenure. Overall, only a small fraction of public servant is accommodated under these housing programmes. With the Federal Government monetization policy started in 2004 by the Obasanjo Administration, this aspect of public housing has virtually ceased to exist at federal level, except for institutional housing and military and Para-military barracks, Under the policy, the government "monetized" the 'fringe' 'benefits' of public officers, a practice in which the government paid cash to its workers for benefits like housing rather than providing accommodation.

Under the mass public housing, the government provides housing for the public mostly on owner-occupier basis. Housing units are sold at subsidized prices in form of mortgage with payment spread over a relatively long period. However, direct provision of housing by government has been replaced by the policy of market enablement approach to housing provision in which the government provides the enabling environment for the functioning of the housing market while the private sector provides the housing.

Nonetheless, government had hitherto tended to view hosing provision mainly as private matters of individuals and households, housing however, received greater attention in the third National Development Plan (1975 – 1980). The government concluded from available information that the magnitude of the country's housing problem was quite serious. In a marked departure from the previous development plans which had given little emphasis to housing, treating it as part of town and country planning, the government accepted active participation in housing provision for all income groups as part of its special responsibility. It promised to intervene in large scale in the sector during the plan period. As the third National Development Plan stated:

The aim is to achieve a significant increase in supply and bring relief especially to the low-income groups who are the worst affected by the current acute shortage. It is the objective of policy to employ a combination of measures to achieve within the next decade a housing situation in which the average urban worker would not be required to pay more than 20 per cent of his monthly income in rent" (Federal Government of Nigeria, 1975, p 308).

Regrettably however, the performance in all these public housing programmes was poor. In general, only about 12 percent of the projected housing target for 1970-74, and 24 percent for 1975-1980 was actually achieved (Nwaka, 2005). Likewise, the overall achievement of the Federal Government housing programmes between 1971 and 1995 was only 20.7 percent (Ndubueze, 2009) while that of the Shehu Shagari Administration (1979-19893) was just 20 percent (Lawal, 1997).

Interestingly, the government has scored itself low in some of it's housing programmes. The national hosing policy, 2012 sated that the Third National Development plan (1975-1980) contained the most significant government statement in the housing sector but at the end of the plan period, less than 15 percent of the proposed 202,000 dwelling units had been completed. Other evaluations indicated that the housing programme of Third National Development plan (1975-1980) achieved only 19 percent in Lagos and 13 percent in the rest of the country while the achievement in the fourth National Development plan (1981 - 1985) was 20 percent (Ogu, & Ogbuozobe 1999).

It has been asserted that Nigerian's housing programmes have been marred by high level fraud and elite corruption and heavy subsidy that appeared to have been most evident in the 1994/95 programme (Ikejiofor, 1999). These factors, Ikejiofor stated, contributed to the failure of the programme. He observed that a mid-term evaluation of the programme more than halfway through its period revealed that less than one percent of the projected 121,000 housing units had been completed and that the central government was subsidizing the housing unit by up to 84 percent of the cost of delivery. However, even at the heavily subsidized rates, the little number of housing units which the government produced was unaffordable to most Nigerians (Ogu & Ogbuozobe, 2001).

In a renewed effort to deal with the nation's housing problems, the Federal Government in 1991 launched the much celebrated National Housing Policy. The Policy was the first of its kind, clearly and distinctly focused on housing. It brought hope of solution to nations' lingering housing problems. The goal of the policy was to ensure that all Nigerians had access to decent accommodation at affordable cost by the years 2000 AD (Federal Republic of Nigeria, 1991). This goal was in line with United Nations resolutions of housing for all by the year 2000. To meet the target of the policy, 700,000 housing units were required to be constructed annually to get 8 million units needed by the end of the year 2000. The National Housing fund was subsequently established by the National Housing Funds Decree (now Act) of 1992 (Cap N45 Laws of the Federal Republic of Nigeria). Some of the aids of the fund were to facilitate the mobilization of housing finance and ensure its constant supply to Nigerians (Federal Republic of Nigeria, 1992). Unfortunately, almost fifteen years after the housing policy was expected to have solved the nation's housing problems, the situation is worse than when the policy was promulgated.

The government has taken some other steps to tackle the nation's urban housing problems such as creating a ministry of housing and urban development at federal level and setting up various committees on land reforms and housing and urban development relate issues, proposal for reviews of relevant laws, and revision of the housing policy. Details of these steps contained in the National Housing policy, 2012

2.9.2 The Private Sector Housing

The private sector has for long been the primary provider of urban housing in Nigeria. The sector provides housing that cuts across the urban social strata, ranging from the informal makeshift shelter to high-class low-density housing. The role of the private sector housing is particularly important in the rented sector where it caters for urban lower income groups majority of whom are not capable to access homeownership. The sector plays such significant role even in homeownership policy-dominated developed countries like England, Australia, Canada, New Zealand and the United State of America (Kemp, 2011). Individuals and households dominate urban housing provision in Nigeria. The UNCHS in 1993 estimated that individuals were providing more than 70 percent of the stock, including rental and owner-occupier housing financing by this group is predominantly through informal sources.

Although urban households aspire to have own homes, they also often desire to earn extra income from their investments in housing building. The urban housing market provides avenues for individuals and households to satisfy the investment motive of financial return, the prestige of being a landlord, and the comfort and security of owner-occupation in one platform. The individuals or household occupies only part, and lets the surplus portion of their house usually at market rents for extra income. The rental income earned from such investment is important to families especially in retirement and old age. Studies have found that the important of rental income as in investment climbs quickly with the age of the investor (Berry, 2000).

Then there is the Network of private real estate developers of varying sizes. The activities of this group became prominent with the government policy of private sector-led housing provision in the early 2000s. They serve mostly the upper middle and high-income groups. They focus on the owner-occupier sub-market. The group operates under the umbrella of the Real Estate Developers Association of Nigeria, REDAN. Allied to this group are the primary mortgage institutions, PMIs Although conceived as retails mortgage institutions, in their quest for higher profits, they also engage in direct construction of house for sale and other non-core activities such as trading (Omirin & Nubi, 2007; Sanusi, 2003). The PMIs also operate in the owner-occupier sub-sector of the urban housing market and serve mainly the upper middle and high-income groups. The real estate developers and property companies concentrate their activates in a few large cities, mainly in Lagos, Abuja, and Port Harcourt. The housing cooperatives are recent development in Nigeria's urban housing markets. A few of them have sprung up to handle the owner-occupier housing needs of their members.

Although the private sector have been the dominant provider of housing in Nigeria, their activities face several challenges such as high cost of building material, poor access to housing finance and development land and adequate residential infrastructure. These challenges have

undermined the ability of the sector to play its role effectively as the leading provider of urban housing. Effectively dealing with these challenges essential to solving Nigeria's urban housing problems.

2.9.3 The Housing Finance Market

Housing generally requires external funding because it is expensive and its capital requirement is usually beyond the capability of most individuals and households. Therefore, efficient housing finance system is essential for effective operation of the housing market. Indeed, housing finance is a vital component of a well-functioning housing system as its provision is a binding constraint that must be addressed before the housing market can sustainably provide affordable housing (Warnock & Warnock, 2008). However, despite the importance of housing finance system to the housing market, only few developing countries have successful and widespread housing finance systems (Malpezzi, 1999). In particular, access to mortgage financing by the low and medium income groups is limited in many developing countries (Erbas & Northaft, 2002). Similarly, Warnock and Warnock (2008) stated that notwithstanding the viral role of mortgage finance in generating housing demand and making housing affordable, it is severely limited in many countries and that without an efficient housing finance system, formal market housing will remain unaffordable for many.

The Nigeria housing finance market is still underdeveloped and very limited. The world Bank (2009a) has described is as virtually non-existent with less than 50,000 mortgages outstanding. The bank also stated that the Market has three distinct subsectors namely, the informal sector, which is by far the largest, the formal open markets sector, which is mainly restricted to that upper income groups in the towns and cities. Another repot revealed that the formal sector generated less than 100,000 transactions between 1960 and 2009, with personal income and saving being the most preferred option and major source of housing finance in the country, accounting for over 60 percent of new houses each year (EFInA/Fin Mark Trust, 2010).

In additions Sanusi (2003) recognized the critical role of finance in housing delivery but acknowledged the existence of some persistent problems that have inhibited efficient and sufficient credit delivery to Nigeria's housing sector. Commenting on the housing challenge in Nigeria Housing Finance Programme(2014) stated that the key obstacle to home ownership in Nigeria has been lack of access to housing finance. It noted that housing finance where is existed was grossly inadequate. This statement is supported by the views of authors who have noted that the failure of the mortgage sector and the resulting credit barriers including the non- availability of low interest mortgage credit facilities have been major factors hindering homeownership in Nigeria (Ogunba, 2009; Olaleye & Adegoke, 2007). It is not surprising therefore that informal finance constitute the main source of housing less affordable (Ellis, 2011). This view is congruent with Me Cord (2011).

The informal housing finance market is a fundamental part of the urban housing market not only in Nigeria but also in Africa at large. A study in Nigeria indicated that the self-employed whose income are not easily verified and the less educated persons rarely source housing finance form the formal market (Akinwunmi, 2009). Similarly, it has been estimated that only about 15 percent of Africa's urban dwellers could qualify for formal housing loan due to lack of regular of predictable incomes and absence of appropriate financial instruments; the remaining 85 percent finance their homes through informal methods (UN-Habital, 2010).

The informal housing finance in Nigeria comprises mainly personal incomes and savings, short-term loans from friends and relations, co-operative societies, thrifts, rotating savings, and trade credit from building materials merchant. Trade credit plays important role in housing finance particularly from the middle-income groups. Builders' merchants usually allow homebuilders short-term credit line in materials in which the home builder buys materials and pays only part of the bill at the time of purchase and the balance according to schedule agreed with the merchant. The credit is usually interest free, but may mean higher prices for the materials. The requirement for such credit are normally integrity, stable source of income and development of some personal relationship with the trader. Overall, however, household income and savings constitute the bulk of the informal housing finance.

The formal housing finance sector, as an integral part of the finance system, is regulated by the Central Bank of Nigeria, CBN. However, the Federal Mortgage Bank of Nigeria, FMBN, is the apex Mortgage institution in country. The FMBN administer the subsidy for housing finance market, the National Hosing Fund. The National Housing Fund Act, 1992 which established the fund provides that the resources of the fund shall consist of the contribution from Nigeria workers, financial contribution by the federal Government, and investment in the fund by insurance companies and commercial and merchants banks. The Act requires Nigerian workers in the private and the public sectors earning of 3,000 thousand naira (19 US dollars) and above per annum and self-employed persons to contribute 2.5 percent of their basic monthly salaries and incomes respectively to the funds at an interest rate of 4 percent. Contributors to the Fund can borrow from it to purchase or build a house expand, complete or renovate an existing house at subsidized interest rate for a maximum period of 25years. Contributions may be refunded to those who did not obtain housing loans on attaining the age of 60, retirement from employment or incapacitation. The Act also requires the Federal Government to contribute to the Fund, and commercial and merchant banks to invest 10% of their loans and advances in the Fund.

2.10 Conceptual Framework

Having review the relevant literature, this potion now discuss the conceptual framework that guided the study. In attempting to deal with the question of conceptual framework, it is recognize

that the intention of the study is to analyse housing affordability within the context of Nigeria's prevalent housing market practice of accessing homeownership. So the study has
focus on the affordability of incremental house-building as practiced in Nigeria which has been explained in the preceding chapter.

2.10.1 The Concept of Housing

Two concepts of housing relevant to this study can be identified in the literature-the product concept and the process concept. Ferguson and Navarret (2003) have argued that housing is quite different between the advanced and the developing countries. They stated that in the high-income industrialized countries housing is a product purchased with the support of a sophisticated network of in institutions including mortgage lenders. In contrast, they said, in developing countries the great bulk of families gains access to homeownership through the progressive housing process whereby to them, housing in the advanced countries in the 'product' approach while in the developing countries, it is the progressive building process approach. The noted however state the housing of the small upper-middle and the upper class is developing countries functions somewhat similar to the industrialized countries but as a much reduce sophisticated and scale. Other researchers have also noted that all authorities in housing provision in developing countries agree that the vast majority of housing and shelter for the low and middle income groups is provided through the informal sector (Keivani & Werna, 2001b). The researcher stated that however, that a small portion of low income housing and practically all higher income ones are provided though the formal channels of government and the private sector.

The issue here is the conceptualization of housing a either a product or a process. In the former case which is prevalent in the advanced countries, households generally acquire their homes as finished products by purchase with the aid formal credit facilities. Developers undertake housing development while households purchase the finished products. Thus, to households in these markets, housing is a product they purchase. In the later case, which is wide spread in developing countries, households generally access homeownership through a gradual building process financed through informal sources. Primarily household incomes and savings. Households rather than developers undertake the development. Therefore, to households in these markets, housing is a process they undertake. It should however be noted that households carrying out the development does not necessary mean their physical involvement in the building activities. Building works could be by hired labour which often involves building technicians and sometimes architects and professional builders. This study is concerned with the process concept as it is practiced in Nigeria's legal urban housing development.

Nigeria's National Housing policy, 2012 defined housing as "the process of providing safe, comfortable, attractive, functional affordable and indefinable shelter… for the daily living activities

of individuals/families…" (emphasis added). The documents however pointed out that this definition is more acceptable and as applicable to piecemeal housing. It explained that the presidential technical Committee on Urban development and Housing defined housing as "the process of providing a large number of residential buildings on a permanent basis with adequate physical infrastructure and social services in planned, decent, safe and sanitary –neighborhood to meet the basic and special needs of the population."

2.10.2 The Concept of Housing Affordability

The concept of housing affordability is viewed in three key dimensions, namely affordability for renters, affordability for existing homeowners, and affordability for would-be homeowners (DTZ Research. 2004). Affordability for renters otherwise referred to as rental housing affordability deals with the ability of households in rental tenure to meet their housing costs. Affordability for existing homeowners involve households' ability to meet on-going cost of homeownership such as mortgage installment payment while affordability for would-be homeowners deals with a household meeting the requirement for accessing homeownership such as qualifying for the terms on which mortgage are grated. This study is concerned with affordability for would-be homeowners; that is the affordability of accessing homeownership.

To potential homeowners in housing markets in the Western Countries, affordability considers whether a household is able to borrow sufficient funds to purchase a home (Gan & Hill, 2009). To most American households, housing "affordability" refers to the terms on which dwellings can be purchased and loans to purchase these assets can be amortised (Quigley & Raphel, 2004). Therefore, housing affordability is defined in terms of the rules applied by financial institutions for grating of conventional mortgages (Bramley, 1992). In fact, most affordability indices define affordability as the ability of a household to qualify for convention mortgage financing, and for the most households, affordability depends on obtaining this financing (Linneman & Megbolugbe 1992).

In contrast, as urban households in Nigeria usually build their homes over a period with their incomes and savings, housing affordability is generally linked to household o funds rather than the credit market. Consequently, affordability is perceived essentially as a household being able to build a home gradually over a period out of its income and savings while maintaining its current rental housing and non-housing needs. It is within this context that housing affordability is current rental housing needs. It is within affordability is Conceived in this study, Nonetheless, it is important to point out that many variables that determine housing affordability are equally relevant in both housing system, though they often operate in different ways.

Thus, in the ratio approach, the indicator of affordability is the ratio or percentage of housing costs to income. The approach defines affordability standard in percentage of housing costs to

income or ratio of house price to income. In this concept, a household is considered to have housing affordability problem when it spend more than a specified percentage of its income on housing (Hulchanski, 1995). The proportion varies across countries but the Us 30% benchmark has gained international recognition (Pittini, 2012). In contrast, the residual income approach defines the indicator in monetary terms as the difference between housing cost and income. In this conceptualization, a household is said to have housing affordability problem if it is unable to meet its non-housing needs at some minimal level of adequacy after paying for housing (Stone, et al, 2011). In other words, if the different between a household's income and its housing cost is not sufficient for the household to meet the cost of its non-housing necessities at some minimal level, the household has housing affordability problem. It implies that what it is paying for housing is more than what it can realistically afford to pay.

The housing affordability conceptualization in this is based on the principles of the residual income approach. Theoretically, the income a household applies to home building in the housing system under the study is the residual income after it has met its expenditures on current rental housing and non-housing necessities. That is, in principle, a household carrying out home building has sufficient residual income in monetary terms for its non-housing necessities. That is, in principle, a household carrying out home building has sufficient residual income in monetary terms for its non-housing necessities after it has paid its current rental housing costs. Any excess is applied to house building

2.10.3 Defining income and Housing Costs Variables

There are no standard definition of income and housing costs, two of most critical variables in the treatment of housing affordability. Differences exist among analysts and policy makers as to what measure of incomes or cost to adopt in housing affordability analysis. Actually, housing market researchers are often faced with the choice about the measure of income to use in their analyse as well as the types of income in determining the household income. A choice has to be made between permanent income is a long-term income measures, perhaps over a lifetime or some relatively long period while current income is the income at the present such as current monthly or annual income.

Following the current practice in the housing affordability studies, the definition of concept of income measure employed in this study is current income rather than permanent income. Although households may intuitively base their housing decision on their expectations of future flows of income, any estimate of such income in a developing economy like Nigeria can be misleading lack of reliable data and irregularity of income especially with the informal sector which predominates the economies of many developing countries as well as economic instability, a regular feature of developing economies, are likely to make any measurement of permanent income unreliable. In fact, Friedman showed that permanent income is capable of different interpretations.

He stated that “The precise line to be drawn between permanent and transitory components is best left to be determined by the data themselves; to be whatever seems to correspond to consumer behavior” (Friedman, 1957, p23). Moreover, the definition of permanent income is loose and that leaves open the question of its measurement (Maghir, 2004).

However, despite the general application of current income in housing affordability analyse, there is still the question whether the income data should gross or disposable, or whether it should be average or individual house income well as what incomes to be included in the determination of household income. Some organizations dealing with housing affordability define income as gross, others define it as net (Tang, 2009). Some researchers have applies gross income (before tax) (Gan & Hill, 2009) while others have employed disposable income (Stone, 2006b; Burke. et al. 2010; Kemp, 2011; Chen, et al, 2010). Yet others have used both definitions of income in their analysis (Nepal, Tanton, & Harding, 2010). The current study has followed researchers that have applied disposable income as it is from disposable incomes that household meet both their housing and non-housing expenditures. Moreover, respondents interviewed in the preliminary survey for this study said that they were concerned with their disposable incomes.

Yet actual definition of household income may vary due to difference in local practices. Some analysis adopts the income of all members of the household. Some use family income. However, from the interview conducted in preliminary survey, the relevant key incomes for this study are those of the household head and those of the spouse(s) who are engaged in economic activities. The incomes of other household members are generally not available to the households. There are however cases where some other members of the household make regular contributions to household expenditures. Accordingly, this study define household income as the income of the household head and those of the spouse(s) where applicable from regular sources and any regular contributions made to household expenditures by other members of the household. The incomes of the household head and the spouse(s) cover their primary occupations and regular secondary.

Sources of incomes, In order to keep the data as simple as possible, income variables which might pose difficult in accounting or might not be readily available to the household were not included in the data. Consequently, accidental and one-off payments and non-cash incomes were not included in the data.

In summary, this study is guided by the concept of housing as a process by which households build their homes gradually over time through informal financing and by the concept of housing affordability as it relates to would-be homeowners, that is, affordability of access to homeownership, it is also guided by the principles of the residual income of concept of housing affordability that for housing to be affordable, a household should have sufficient income in monetary terms for its non-housing necessities after paying for housing. The study is further guided by the conceptualization of

income measures as the current household disposable income, and housing costs a as the annual cost of rental housing and the capital cost of building an owner-occupier house.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This chapter explains the research methodology used in carrying out the study. Research methodology considers the context of the study and the results in order to achieve meaningful outcomes. Moreover, the selection of an appropriate research design involves several steps beginning with identifying the problem. The methodology could be quantitative, qualitative or combination of both called mixed methods. The type of methodology to be used depends on the nature of problem being addressed and the information needed. This study relied on both Primary and Secondary Sources for information. While the Secondary information came from literature, the Primary information was source through structured questionnaire. The method for this research is organized based on research design, research population sampling frame, sampling size, sampling technique, pilot testing, sources of data, data collection instruments, the procedure for data collection and methods of data analysis.

3.1.1 Research Design

Research design is the structuring of investigation aimed at identifying variables and their relationship to one another. (Charie, 1962) define it as the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance with economy in procedure.

Decisions regarding what, where, when, when, how much by what means, concerning enquiry or research study constitute research design (Kothari 2004). It constitute the blue print for the collection, measurement and analysis of data and has a great bearing on the reliability of the result arrived at. The essence of research design according to Kothari (2004) is to provide for the collection of relevant evidence with minimal expenditure of effort, time and money. This study will adopt survey research design.

3.1.2 Data Collection Instrument

A set of questionnaire is the basic instrument for eliciting needed data for this research. It contains a number of sections. Each section contains questions relating to some specific about the residents while other section contain question relating to the respondents perception on housing affordability.

3.2 Procedure for Data Collection

(i) Literature review

Related textbooks, Journals and some literature on housing affordability of selected countries including Nigeria, were reviewed.

(ii) Questionnaire

Structured questionnaire were administered to household heads in the study area, with a view to retrieving answers to questions that could provide answer to the research questions and help determine what residents perceived to be major constraints to housing affordability in the study area.

To avoid the problem of non-retrieval of questionnaire, research assistants were employed to facilitate the coverage of the target population in the study area.

Their roles were to administer the questionnaire, interpret the questions to respondents and help those who are not able to read or write to fill in the appropriate responses. The research assistants were trained and they were very much familiar with the study area.

3.2.1 Primary Data

The Primary Data were collected through administration of questionnaire and field. Study were administered by the researcher and trained field Assistants. The structured questionnaire was used to collect information on participants' socio-economic characteristics, housing costs, and other factors affecting housing affordability, and other components of the study.

3.2.2 Secondary Data

Existing documentation from academic journals magazines, monographs, newspaper, text books and other literature relating to this study were reviewed.

3.3 Sample Frame

Sample Frame is the list or quasi list of elements from which a probability sample is selected. The 2006 census recorded the population of Benin City to be 1,346,703. Using a population growth of 3.1%, the population of Benin City in 2016 is estimated at 1,764,181. The population of the city was divided by 6, which represent the official average household size in Nigeria. The result was 294030, thus, the sampling frame is 29430 households.

The sample size for the city was then determined from the sample frame, using Yaro Yamane sample size formula given as:

$$n = \frac{N}{I + N(e)^2}$$

Where n = Sample Size

N = the population size

e = the level of precision (margin of sampling error) expressed in decimal thus, the sample size for the estimated population of 294.030 households at a margin of error $\pm$5%

$$= \frac{294030}{I + 294030}$$

Thus gives sample size of 398 households

3.4 Sampling Technique

This is a common method of collecting data in a survey research. The collection of data were from primary sources, structured questionnaire, and secondary sources: relevant literature published and unpublished articles, books, journals etc; as well as sundry information.

Systematic random sampling technique was adopted to administer the structured questionnaire to the respondents in the study area. The respondents included heads of dwelling units in Benin metropolis. A total of 550 structured questionnaire were administered to elicit information from residents in the study area. A total of 398 of questionnaire were successfully retrieved.

3.5 Validity and Reliability of Research Instruments

Validity of Research Instrument is the degree to which the results accurately, efficiently and generally express what it is intended to measure. It thus, considers the nature and meaning of variables, while, reliability concerns itself with the degree of consistency of measurement rather than the measurement of what it is intended. It therefore suggest that research instrument can be reliable without necessarily been valid; whereas, it cannot be valid without been first reliable (Agbola and Olatubara, 2013).

Reliability refers to the consistency of measurement (Adehankin, 2013), on the other hand, Joppe (2000) and pallant (2011) view reliability as the extent to which results are consistent over time and an accurate representation of the population under study.

However, the key issue is consistency and not whether we are measuring what we intend to measure.

The validity and reliability of the research instrument for this study was subjected to test through pilot survey before main survey. The importance of pilot survey as a preliminary trial in research and its development in order to get valid result cannot be overemphasized. It helps to reduce errors of repetition in the measuring instrument(s) that are not in tandem with others. This further helped in the test for the internal consistency, adequacy and appropriateness or otherwise of the questionnaire.

3.6 Sampling Strategy

In a study by Olujimi and Iyanda (2013), the multi-stage random sampling methods was used in the administration of 2054 house-owner questionnaire in Lagos metropolis through delimitation of selected Lagos Enumeration Areas into high, medium and low-density residential neighbourhoods. In this study the Enumerated area into high, medium and low density residential area, were identified. In each of the Enumerated Areas (EA), households were systematically sampled from the list of numbered houses (households) until the required number allocated to the EAS was reached. The number sampling intervals (K) were determined by dividing the number of houses in an EA by

the number of sample size proportionally allocated to each EA. The process involved sampling of the first (1st) house at the nodal point within the EA, while others were systematically sampled by the predetermined sampling intervals (k).

A questionnaire was given to every consenting household head to fill. In a house with more than one household, a household was selected at random and the household head was given a copy of the questionnaire. In cases of refusal by some selected household heads, other consenting household heads were selected from the sampling frame.

The use of pilot study was recommended as valid and logical way to determine expected survey response rate (Barllett, Kotrlik & Higgins, 2001). In the pilot survey 150 questionnaires were administered in the study area and 120 were successfully retrieved from the respondent. The survey for the pilot study achieved a response rate of about 80percent before it was extended to obtain the desire sample size for the study. The sample size adjusted for the expected response rate is thus: 398÷ 0.8 = 500 (appx). Some allowances were made to this figure and accordingly 550 copies of the questionnaire divided proportionally across the three populations strata were distributed in the first, instance. However, as expected, there were cases of non and incomplete responses. To deal with this challenge and ensure that the targeted sample size of 398% was achieved, the sampling was extended where necessary until the required sample size was attained. The survey personnel applied adequate follow-up and where necessary, took steps to replace questionnaire that were not returned or not properly completed until the specified sample size was achieved. The questionnaire was administered by hands.

3.6.1 Survey Procedure

The interview mode was employed in conducting the surveys, in which there was personal, face-to-face encounter between an interviewer and a respondent. Ten research assistants were recruited to conduct the surveys. The research assistants were trained as architects at a local university and they have sound knowledge of the study area. Before the commencement of the actual field work, sensitization session was held with the research assistants to inform them about the way and manner they should conduct themselves while on the field, and the type and nature of questions to be asked. The assistant were advised to be polite and tolerant when asking the respondents questions.

Guidelines/Instructions sheet was prepared as a reference containing information on how to select and approach participants, and how to fill the survey sheets. They were advised to ensure that they pay attention to asking the survey question and to ask question in local languages or pidgin when the need arises, since the questionnaire was prepared in English Language. The questionnaire was administered to adults, mostly heads of households in the study area.

The fieldwork was carried out in the study area for a period of two months, from July to September, 2016, during which primary data were collected. Some preliminary decisions were made before finally embarked on the main filed work. First was to have pilot survey study of the area in order to gain access to the study area and gain the supports of the resident in the study area. The aim was to avoid possible embarrassment to the researcher and research assistants by the residents and to have a chat and familiarize with the local people and identify those residents that could readily respond to the questionnaire.

3.7 Data Analysis

The data collected from the respondents were subjected to both descriptive and inferential statistics analysis. The descriptive statistics was used to show the frequency distributions for the result from the study.

In utilizing inferential statistics, the Pearson product moment and point biserial as well as chi-square test analysis were used because of the heterogeneity of the variables. The survey data were analyzed using 1Bm statistical package for the social sciences (spss) software.

During the data analyses, the responses from the closed-ended question of the survey were transferred into the SPSS spread sheets in which each question represented a single variable, whereas each variable has different attributes such as name, type value measure etc.

CHAPTER FOUR

4.0 DATA PRESENTATION, ANALYSIS, FINDINGS AND DISCUSSION OF RESULTS

4.1 Introduction

This chapter presents and discusses findings of the study, outputs and results obtained from the socioeconomic characteristics of residents, cost of housing and other factors affecting housing affordability in Benin Metropolis.

As for the survey carried out, of the 550 questionnaire administered 420(76.5%), were retrieved. However, some of the questionnaires were not properly responded to by the respondents, and some respondents did not respond to some questions, this brought about the total number down to 398 valid questionnaire, which was the targeted sample size for the study.

4.2 The Characteristics of the Respondents

The characteristics of the respondent as indicated in table 4.1 shows that of the 398 respondents, 297(74.6%) were males, while 101(25.4%) were females. Less than ten percent, 37(9.2%) were between ages 21 – 30 years, 37 (9.2%) were between 31 and 40 years; 284(71.4%) were between 41 – 60 years of age.

Majority of the respondents 501(75.6%) were married, 26(6.5%) were singles, 8(2%) were divorce, 42(10.6%) widows and 21(5.3%) were widows and widowers respectively.

As for the educational status of the respondents, 5(1.3%) had no formal education, 85(21.4%) had up to primary education, 220(55.3%) had up to secondary education while 88(20%) had tertiary education.

Further more, the study examined the occupational status of the respondents and the results were as follows:

170(37.7%) were unemployed, 120(30.1%) were civil servants, 108(27.2%) work in private sector, while 20(5%) were self employed.

The result on the average income of the respondents indicated that more than half of the respondents 201(50.5%) earned below ₦50,000 monthly, 80(20.1%) earned between ₦51,000 and ₦100,000 monthly. 60(15.0%) earned between ₦101,000 and ₦150,000 monthly, 50(12.5%) earned between ₦151,000 and ₦200,000 monthly, while only 7(1.8%) earned above ₦200,000 monthly.

The socio-economic characteristics of the respondents shows that their responses can provide the needed information on the constraints of housing affordability in Benin metropolis.

4.2.1 Socio-Economic Characteristics of Respondents in the Study Area

Table 4.2.1 Presents Descriptive Analysis for Socio-Economic Characteristics of Residents in Benin Metropolis.

Variables	Frequency	Percentage
Gender		
Male	297	74.6
Female	101	25.4
Age Group		
21-30	37	9.2
31-40	37	9.2
41-60	284	71.4
Above 60	40	10.20
Marital Status		
Singles	26	6.5
Married	501	75.6
Divorce	8	2.0
Widow	42	10.6
Widower	21	5.3
Education		
No formal Education	5	1.3
Primary School	85	21.4
Secondary School	220	55.3
Tertiary Institution	88	22.0
Occupational Status		
Unemployed	150	32.7
Civil servant	120	30.1
Private sector	108	27.2
Income Class		
Those earning below ₦50,000 per month	201	50.5
Between ₦51,000 – ₦100,000	80	20.1
Between N101,000 – ₦150,000	60	15.1
₦151,000 – ₦200,000	17	14.3
Above ₦200,000		

Source: *Author's filed work 2016*

4.2.2 Data Presentation, Analysis, Findings and Discussion of Objective One

This objective addresses the first research question and hypothesis which seeks to find out if there is significant correlation between the socio-economic characteristics of residents and housing affordability in the study area. In other words, the objective seeks to answer the question of whether or not the socio-economic characteristics of residents influence housing affordability in Benin Metropolis, Finding on this objective are presented and discussed using descriptive (tables) and correlating (Pearson product moment and point-biserial as well as chi-square tests) analysis because of the heterogeneity of the variables.

Objective One: To examine the influence of Socio-economic characteristics of residents on housing affordability in Benin metropolis

$H0_1$: There is no correlation between socio-economic characteristics of residents and housing affordability in Benin metropolis

The Socio-economic characteristics of the study area as indicated in Table 4.1.1 shows that of the 398 respondents, 297(74.6%) were males and 101(25.4%) were females. The study shows that most of the respondents were household heads and men dominated the population of household heads in the study area. This could have been the influencing factor that made the males more than the females in the gender result. There were some cases where questionnaire was administered to both the eldest male and the eldest female of the household and this could have also contributed to the number of female gender in the study area. The study also show that less than 10percent 30(7.5%) were between ages 21 – 30 years, 35(8.8%) were between ages 31 – 40 years, 113(28.4%) were between 41 – 50 years, 200(50.3) were between 51 and 60 years of age, while 20(5%), were above 60 years. This shows that matured household heads were captured in this study and their opinion were soughted after.

Furthermore, majority of the respondents 501(75.6%) were married, 26(6.5%) were singles, 8(2.0%) were divorce, 42(10.6%) widows and 21(5.3%) were widower. This shows that more than three quarter of the respondents were responsible house heads. Table 4.1 also shows that 5(1.3%) of the respondents do not have formal education, 85(21.4%) had up to primary education, 220(55.3%) were up to secondary education, 88(22%) had tertiary education. Higher education provides opportunity for better/high paid jobs. The result shows that only 88(22.0%) of the respondents in the study area, have tertiary education, and may have opportunity to high paid jobs; majority of the respondents with lower qualifications were low income earner. There is also the likelihood that those that earn high income can easily afford housing than those that earn low income in the study area. On the occupational status, 150(37.7%) were unemployed, civil servant 120(30.1%), self-employed 20(5%), while those that work with private sector were 108(27.2%). This result shows that there is high unemployment rate in the study area. This will have negative impact on housing affordability in

the study area. As it is shown in table 4.1, majority of the respondents 201(50.1%) earn below ₦50,000 monthly. This shows that most of the respondents who are on paid employment do not earn much salary per month. This could be attributed to the fact that most of them are primary / secondary school certificate holders who do not have opportunity to high paid jobs. Those that earn between ₦51,000 and ₦100,000 c 80(20.1%), those that earn between ₦101,000 150,000 v 60(15.1%), those that earn between ₦151,000 and ₦200,000 were 1(14.3%) and none earn above ₦200,000 per month. This shows that majority of the respondents earn low income per month. It would be difficult for them to afford the payment of rents for decent and good quality houses and it will also be difficult for them to afford building their own houses. This implies that low income is a serious challenge to housing affordability in Benin metropolis.

Table 4.2.2 Correlation Results of Socio-Economic Characteristics Variables

Socio-Economics Characteristics	**Pearson Product Moment Correlation Test**	**INCOME**
	AGE	
AGE	1,000	0.572**
INCOME		1,000
Point-Biserial Correlation Test		
SEX	0.453**	0.860**
MARITA	0.642**	0.787**
EDU	0.792**	0.781**
Employ	0.483**	0.852**

** Correlation is significant at the 0.01 Alpha level

Source: *Author's filed work 2016*

Correlation results of socio-economic characteristic variables. To analyze the correlation between influence of the socio-economic characteristics of residents on housing affordability, Pearson product moment and point-biserial correlation, chi-square tests were derived as shown on Table 4.2 and 4.3 because of the heterogeneous status of the variables.

Using the Pearson moment correlation test a moderate coefficient (v=0.572) statistically significant at P<0.01 alpha level was calculated between age and income respondents calculated was rpb=860 statistically significant at p<0.01. The coefficient between employment status and income accounted for rpb 0.852 statistically significant at p<0.01. This correlation between employment status of respondents and their income suggests that increase occupational engagement status of

respondents and their income suggests that increased occupational engagement (employment) improves income which could help afford housing.

Similarly, the correlation between marital status and income presented a coefficient of rpb=0.787 statistically significant at p<0.01. This reveals that combined resources of couples improve their income and access to affordable housing. Moreover, the result of correlation test between education and income yielded a positive coefficient (rpb 0.781, n=398, P<0.01). This reveals that educated people have the tendency to earn high income and achieve decent and affordable housing.

Table 4.2.3 Chi-Square Test Relationship of Socio-Economic Characteristics' Variables

	SEX	MARITA	EDU	EMPLOY
Chi-Square	96.523[a]	777.201[a]	239.126[c]	9.658[a]
Df	1	4	3	1
Asymp. Sign.	0.000	0.000	0.001	0.002

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 199.0.

b. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 79.6.

c. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 99.5.

Source: *Author's* Fieldwork, 2016

The chi-square test in Table 4.3 reveals a statistically significant association (P<0.01) among the variables of socio-economic characteristics. The use of chi-square (x^2 – score) is applied to verify the level of significance of an association. Hence, to confirm the coefficient of this association, the value x^2 – scores was obtained from spss analysis.

Decision was taken by comparing the calculated and tabulated values of x^2 at 0.001, 3 degrees of freedom. From table 4.3, the calculated value is:

$x^2 = 239.126$ (Edu)

df = 3

P < 0.001

The table value of x^2 at 3 degrees of freedom with P<0.001 level of significance is = 16.266, the calculated value of x^2 is much higher than the table value. This necessitated the rejection on the null hypothesis ($H0_1$) which states that there is no correlating between the socio-economic characteristics of residents and housing affordability in the study area. This leading to the acceptance of the alternative hypothesis ($H0_2$); if p-value is less than a = 0.05.

4.3 Data Presentation, Analysis, Findings and Discussion of Objective Two

Objective Two: To analyses the cost of housing and seeks to answer the research question of whether or not the cost of housing, Influences housing affordability in the study area. Findings on this objective are presented and discussed in descriptive (Tables).

Table 4.3.1 Cost of Different types of houses at selected neighborhood within the study area (Purchase price) by private developers

S/ No	House type		Price Range		
		Ugbowo	Ugbor	Obe	
		₦	₦	₦	**Repayment Terms**
1.	1- bedroom flat detached	3 - 4 Million	4 – 5 Million	3 – 5 Million	Cash payment
2.	2 - bedroom flat semi-detached	4 – 5 Million	7 – 9 Million	5 – 6 Million	Cash payment: Down payment: Balance in 3 installment
3.	3 - bedroom flat bungalow semi-detached	6 – 7 Million	9 – 10 Million	8 – 9 Million	50% Down payment: Balance: Balance 1 year at delivery
4.	3 – bedroom bungalow detached	8 – 10 Million	10 – 12 Million	9 – 10 Million	Cash payment 50% cash deposit. Balance on delivery
5.	4 - bedroom bungalow	10 - 12 Million	13 - 14 Million	10 - 11 Million	Cash payment: 50% deposit, Balance on delivery
6.	4 – bedroom duplex	31 Million	38 Million	27 Million	Cash payment: 50% deposit: Balance on delivery
7.	5 – bedroom duplex	35 Million	40 Million	32 Million	Cash payment: 50% deposit: Balance on delivery
8.	3 – bedroom flats (4 in 1)	35 Million	43 Million	33 - 34 Million	

Source: *Author's Fieldwork, 2016*

From table 4.4 above 1- 3 bedroom have their prices within the target group (the low income earners); but their cash payment is predominant. From 3 bedroom to 5 bedroom detached houses, the price is outside the target group – the low income earners. Unfortunately, only few of the private

developers produced 1 – 2 bedroom flats, as most of them concentrate on the supply of 3, 4 and 5 bedroom bungalows, semidetached and detached houses. Thus, the types of housing units produced are targeted at medium and high-income groups for the neglect of house required by low-income group. The terms of payment also make it difficult for most low income and even medium group to purchase houses, as the anticipated mortgage facilities are not available.

From table 4.4, it is shown that most households whose income is below ₦50,000 will have to pay for more than 50% of their income for housing of acceptable standard, while most households in the study area whose income is above ₦50,000 have to pay between 30% to 35% to service mortgage repayments of such facilities, if available to them. As it was revealed in the study, the two main determinants of the housing affordability (in terms of cost of purchase) are cost of housing and household income.

Table 4.3.2 Cost of Different types of houses at selected neighborhood within the study area (Rental Cost) by private developers

S/ No	House type	Price Range		
		Ugbowo Quarters	Ugbor Quarters	Obe Quarters
		₦	₦	₦
1.	1- bedroom flat Semi-detached	72 - 75 Thousand	75 - 80 Thousand	60 - 65
2.	2 - bedroom flat Semi-detached	120 - 140 Thousand	144 - 150 Thousand	84 - 90
3.	3 - bedroom flat Semi-detached	200 - 250 Thousand	250 - 300 Thousand	180- 200 Thousand
4.	3 – bedroom detached	250 - 300 Thousand	400 - 450 Thousand	250-300 Thousand
5.	4 - bedroom bungalow	300 - 400 Thousand	500 - 600 Thousand	300 - 350 Thousand
6.	4 – bedroom duplex	450 - 500 Thousand	1 - 2 Million	400 – 450 Thousand

Source: *Author's Fieldwork, 2016*

The survey of rental cost of different types of houses was carried out at different neighborhoods within the study area, as shown in table 4.4.1.

In the three different neighborhoods, housing affordability index was calculated, using typical example from each neighborhood. The affordability index model used in this study is as follows:

$$\text{Affordability Index} = \frac{\text{cost of housing + transportation}}{\text{Income}}$$

Transportation is an essential component of housing affordability, especially when affordability index is considered in terms of renter cost.

Affordability calculations for the three households at different prices and different locations

Ugbowo

(1) From the field data the average transportation cost per annum, per household in the neighborhood is ₦108,000

From Table 4.4.1 the average renter cost of 1 bedroom flat per year is ₦72,000

:. Affordability Index = $\frac{\text{cost of housing + transportation}}{\text{Income}}$

Using household income of ₦600,000 per year, Affordability Index = $\frac{72,000 + 108,000}{600,000}$

$= \frac{72,000 + 108,000}{\text{Income}}$

$= 30\%$

Ugbor

Another household whose average income is also ₦600,000, but lives at Ugbor neighborhood and spends ₦120,000 per year on 1- bedroom flat, and spends ₦108,000 on transport

Housing Affordability index $= \frac{72,000 + 108,000}{600,000}$

$= 40\%$

A third household whose income is ₦600,000 and occupies a similar apartment of the same standard and spends an average of ₦108,000 annum on rent and N150,000 on transportation, at Obe, then,

Affordability Index $= \frac{108,000 + 150,000}{600,000}$

$= 43\%$

From the analysis of the affordability index of each neighborhood with the same type of apartment, it is shown that apart from the cost of housing and household income which play major roles in Affordability index, Transportation and location also play important roles in Housing Affordability. The closer the households are to their business places, place of works, schools, hospital etc, the less they spend on transportation.

As it is shown in the housing affordability index calculations, most of the rent for the houses in the area were not affordable especially by the low income earner.

It is also shown in the table 4.4.1 the same type and standard of houses attract different rental cost at different locations. Which implies that location also play a vital role in rental cost.

From the above analysis, cost of housing (purchase), rental cost, income, house type, transportation and location, all play important roles in housing affordability in the study area.

4.4 Data Presentation, Analysis, Findings and Discussion of Objective Three

Objective Three addresses that research question that seeks to identify other factors affecting Housing Affordability in the study area.

Findings on this objective are presented and discussed under descriptive (table) and spearman's Rho Correlation (bivariate) analysis was used to describe some of the factors affecting housing affordability of respondents in the study area.

Objective Three: To identify factors affecting Housing Affordability in the study area.

Table 4.4.1 Other factors Affecting Housing Affordability of Respondents in Benin Metropolis

Variable	Strongly agree (%)	Agree (%)	Partially Agree (Average) (%)	Disagree (%)	Strongly disagree (%)
Low income	305(76.6%)	58(14.6%)	30(7.5%)	3(.8%)	2(.5%)
Access to mortgage loan	301(75.6%)	60(15.1%)	31(7.8%)	4(1.0%)	2(0.5%)
High cost of land	256(64.2%)	90(22.6%)	42(10.2%)	7(1.8%)	3(0.8%)
High cost of Construction labour	201(50.5%)	144(36.2%)	30(7.5%)	18(4.5%)	5(1.3%)
High cost of building materials	256(64.3%)	112(28.2%)	12(3.0%)	10(2.5%)	8(2.0%)
High cost of rental value	246(61.8)	132(33.1%)	15(3.8%)	4(1.0%)	1(.3%)

Source: *Author's Fieldwork, 2016*

As indicated in Table 4.6, the number of respondents that strongly agree that low income is a factor affecting housing affordability in Benin City is more than three quarter, 305(76.5%), those

that merely agreed are 58(14.6%), partially agreed are 30(7.5%), disagreed are 3(.8%) and those that strongly disagreed are just 2(.5%).

This result clearly shown that low income among the respondents in the study area is a serious factor affecting housing affordability in Benin metropolis.

Another factor affecting housing affordability in the study area is low access to mortgage loan. As indicated in Table 4.6, more than three quarter of the respondents 301(75.6%) strongly agreed that non access to housing loan is another factor that is affecting housing affordability in Benin metropolis; 60(15.1%), disagreed 31(7.8%), partially agreed 4(1%), disagreed 2(0.05%), strongly disagreed. The result again revealed that only very few of the respondents, may have access to housing loan in the study area, hence, housing affordability is affected.

On the high cost of land, 256(64.2%) strongly agree that high cost of land affects housing affordability in Benin City; 90(22.6%) merely agree 42(10.6%) partially agree, 7(1.8%) disagree and 3(0.8%) totally disagree. What this again implies is that high cost of land is another serious factor militating against housing affordability in the study.

High cost of construction labour is another factor examined in the study. As it is indicated in Table 4.6, more than half of the respondents 201(50.5%) strongly agree that high cost of construction labour is a factor affecting housing affordability in the study area, 144(36.2%) disagreed, 30(7.5%) partially agreed, 18(4.5%) disagreed, while only 5(1.3%) strongly disagreed. This result again suggests that high cost of construction labour is a factor affecting housing affordability in the study area.

In the case of high cost of building, materials, 256(64.3%) of the respondents strongly agreed that high cost of building materials is another factors affecting housing affordability in the study area, 112(28.2%) Agreed, 12(3%) partially agreed, 10(2.5%) Disagreed and 8(2%) Strongly disagreed. What this result further revealed is that in the opinion of the respondents, building materials is another factor militating against housing affordability in the study area.

Another issued that was examined in this study is the high cost of rental values. As it is indicated in Table 4.6 those respondent that strongly agreed that there is high cost of rental value were 246(61.8%), Agree 132(33.1%), partially agree 15(3.8%), disagree 4(1.0%) while strongly disagree is 1(0.3%).

The result again shows that rental value is high in the study area. This means that many of the respondents, especially those low income earners could not afford to pay for high rent in the study area.

CHAPTER FIVE

5.0 SUMMARY DISCUSSIONS OF FINDINGS RECOMMENDATIONS AND CONCLUSION

5.1 SUMMARY OF FINDINGS

The study was carried out to assess the constraints of housing affordability in Benin City. The study examine the socio-economic characteristics of the respondents in the study area, it also examined the cost of housing – both purchase and rental cost and other factors which affects housing affordability in the study area.

The study shows that most of the respondents in the study area, were household heads and men dominated the population of households with 74.6 percent, while women were 25.5 percent of the population. Majority of the respondent were married 7501 (75.6%) and matured household heads. More than 50 percent of the respondents had secondary education, while 21.4 percent had primary education, and those with higher education was 22 percent of the respondents.

The result of the average income of the respondents in the study area, indicated that more than 50 percent of the respondents 201(50.5%), earns below ₦50,000, monthly, 80(20.1%) earned between ₦51,000 and ₦100,000, monthly. Those that earned between ₦101,000 and ₦150,000 monthly were just 15%; while only 1.8% earns above ₦200,000 per month.

It was also shown in the data that unemployment rate is high in the study area, with 32.7%. the civil servants and those working with the private sectors are not very many. The study further revealed that the cost of housing is high in the study area. Both the purchase and renter costs are high in the study area.

The study also revealed that apart from the income of the households and cost of housing that usually constitutes major factors to housing affordability, transportation is also an important component in cost of housing, especially for those on renters location is another factors that plays vital role in housing affordability in the study area. As it is shown in the data, houses of the same type and quality have different costs at different locations in the study area.

Almost all of the respondent in the study area have no access to mortgage or housing loan. Another factor which the study revealed that was hindrance to housing affordability was high cost of land and construction labour.

5.2 CONTRIBUTIONS TO KNOWLEDGE

It is expected that this study will contribute to knowledge in the following ways:

1. It will provide information about major factors affecting housing affordability in the study area
2. It will stimulate the interest of both government and private/individual developers to source indigenous building materials to achieve housing affordability in Benin City and Nigeria in general
3. It will provide framework for housing affordability delivery for individual, corporate bodies and government at all levels in the study area and Nigeria in general.

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5.3 RECOMMENDATIONS

1. Government should reform the mortgage system to facilitate credit expansion, especially to low and medium income earners, in a manner that allows the real estate sector to growth and that opens the doors to housing affordability in Benin City and Nigeria in general.

2. The development of local building materials will reduce the over dependent on foreign building materials for the construction of housing in Nigeria. This will reduce the cost of building materials and bring about housing affordability in the study area.

3. The implication on the effect of building cost inflation on housing affordability is that policy measures to reduce inflation on house inputs are essential to improving access to home ownership and home ownership rates; such measures should be persistent.

4. There is high rate of unemployment in the study area; Both government and private entrepreneur should establish more industries in the study area to create more job opportunities, hence, improve housing affordability in the area.

5.4 CONCLUSION

From the findings of the study and the discussions thereof, the following conclusion can be drawn

1. Cost of housing is a major constraints to housing affordability in the study area.
2. The determinant of housing affordability to households in the study area is related to the residents' socio-economic characteristics
3. Households in the study area, face housing affordability constraints arising from the interaction of a wide variety of factors both within and outside housing sector
4. Housing affordability problems in Benin metropolis are both income and housing cost problems
5. High cost of land and cumbersome system of acquiring land in Benin City is another major constraint of housing affordability in the metropolis.

5.5. Area for further Research

The followings are areas for further studies;

1. Assessment of the role of mortgage finance for affordable housing development provision in Nigeria
2. The development of indigenous building materials for affordable housing in Nigeria and
3. Assessment of the role of government in the provision of affordable housing in Nigeria.

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Appendix I

FEDERAL UNIVERSITY OF TECHNOLOGY, AKURE
P.M.B. 704, AKURE, ONDO STATE NIGERIA
SCHOOL OF ENVIRONMENT TECHNOLOGY,
DEPARTMENT OF ARCHITECTURE

ASSESSMENT OF THE CONSTRAINTS OF HOSING AFFORDABILITY IN BENIN CITY, EDO STATE.

Dear respondent,

I am from the Federal University of Technology Akure, Ondo State. This surveys part of an on-going research study leading to the award of degree master of philosophy (M.Phil) in architecture, in the university.

I am carrying out the study on Assessment of the Constraints of Housing Affordability in Benin City, Edo State.

This questionnaire is not a test, therefore, do not spend too much time about what should be the correct answer. The correct answer is the one that reflects your true feelings.

All the information you shall provide will be treated with ultimate confidentiality and for the purpose of the study only I am grateful for your help and cooperation.

Yours faithfully,

Isiwele Ahamiebaloyai Joseph

Appendix II

QUESTIONNAIRE SCHEDULES ON AN ASSESSMENT OF THE CONSTRAINTS OF HOUSING AFFODABILITY IN BENIN CITY, EDO STATE

Please write in the appropriate response in the space provided, or tick in the appropriate box ( )

A. <u>Socio-Economic Characteristics Of Respondents</u>

1. Name of household _____
2. Address (location of household) _____
3. Name of neighbourhood _____
4. Sex
   - (a) Male ( )
   - (b) Female ( )
5. Age bracket in years
   - 21 – 30 ( )
   - 31 – 40 ( )
   - 41 – 50 ( )
   - Above 60 ( )
6. Marital status
   - Single ( )
   - Married ( )
   - Divorced ( )
   - Widow ( )
   - Widower ( )
7. Educational Qualification
   - No formal education ( )
   - Primary Education ( )
   - Secondary Education ( )
   - Tertiary Education ( )
8. Employment status
   - No employment ( )
   - Self employed ( )
   - Government employee ( )
   - Private employee ( )

9. Monthly income bracket

Below N50,000 ( )

N51,000 – N100,000 ( )

N101,000 – N150,000 ( )

N151 – 200,000 ( )

Above N200,000 ( )

B. <u>Finance</u>

10. Low income as a challenge to housing provision and affordability in Benin City

Strongly disagree ( )

Disagree ( )

Average ( )

Agree ( )

Strongly agree ( )

11. Access to mortgage loan a challenge to housing affordability in Benin City?

Strongly disagree ( )

Disagree ( )

Average ( )

Agree ( )

Strongly agree ( )

12. High cost of land as a challenge to housing affordability in Benin City

Strongly disagree ( )

Disagree ( )

Average ( )

Agree ( )

Strongly agree ( )

13. High cost of building materials as a challenge to the provision and housing affordability in Benin City ( )

Strongly disagree ( )

Disagree ( )

Average ( )

Agree ( )

Strongly agree ( )

C. <u>Cost of Housing and Type of Houses</u>

14. What type of house do you occupy?

1 – bedroom flat ( )

2 – bedroom flat ( )

3 – bedroom flat ( )

4 – bedroom flat ( )

15. State how much you bought the house if it was purchased ( )

16. What is the yearly rental cost of your house/apartment? ( )

17. What is the average daily cost of your transportation? ( )